ROYAL BOTANIC GARDENS, KEW.

BULLETIN

OF

MISCELLANEOUS INFORMATION.

APPENDIX III.—1913.

NEW GARDEN PLANTS OF THE YEAR 1912.

The number of garden plants annually described in botanical and horticultural publications, both English and foreign, is now so considerable that it has been thought desirable to publish a complete list of them in the *Kew Bulletin* each year. The following list comprises all the new introductions recorded during 1912. These lists are indispensable to the maintenance of a correct nomenclature, especially in the smaller botanical establishments in correspondence with Kew, which are, as a rule, only scantily provided with horticultural periodicals. Such a list will also afford information respecting new plants under cultivation at this establishment, many of which will be distributed from it in the regular course of exchange with other botanic gardens.

The present list includes not only plants brought into cultivation for the first time during 1912, but the most noteworthy of those which have been re-introduced after being lost from cultivation. Other plants included in the list may have been in gardens for several years, but either were not described or their names had not been authenticated until recently.

In addition to species and well-marked varieties, hybrids, whether introduced or of garden origin, have been included where they have been described with formal botanical names. Mere cultural forms of well-known garden plants are omitted, for obvious reasons.

In every case the plant is cited under its published name, although some of the names are doubtfully correct. Where, however, a correction has appeared desirable, this is made.

The name of the person in whose collection the plant was first noticed or described is given where known.

An asterisk is prefixed to all those plants of which examples are in cultivation at Kew.

The publications from which this list is compiled, with the abbreviations used to indicate them, are as follows:—*Bees, Cat.*—Bees, Ltd. Catalogue of Hardy Plants. *B. K.*—Vaupel, Blühende

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Kakteen. *B. M.*—Botanical Magazine. *B. M. H. N.*—Bulletin du Muséum d'Histoire Naturelle, Paris. *B. P.*—Bollettino del R. Orto Botanico di Palermo. *B. S. B. F.*—Bulletin de la Société Botanique de France. *B. T. O.*—Bullettino della R. Società Toscana di Orticultura. *Fedde, Repert.*—Fedde, Repertorium specierum novarum regni vegetabilis. *Gard.*—The Garden. *G. C.*—Gardeners' Chronicle. *Gfl.*—Gartenflora. *G. M.*—Gardeners' Magazine. *Jard.*—Le Jardin. *J. of H.*—Journal of Horticulture. *J. H. F.*—Journal de la Société Nationale d'Horticulture de France. *J. R. H. S.*—Journal of the Royal Horticultural Society. *K. B.*—Bulletin of Miscellaneous Information, Royal Botanic Gardens, Kew. *Lemoine, Cat.*—Lemoine, Catalogue. *M. D. G.*—Mitteilungen der Deutschen Dendrologischen Gesellschaft. *M. G. Z.* — Möllers Deutsche Gärtner - Zeitung. *M. K.* — Monatsschrift für Kakteenkunde. *N. B.*—Notizblatt des Königl. botanischen Gartens und Museums zu Dahlem bei Steglitz (Berlin). *N. B. G. Edinb.*—Notes from the Royal Botanic Garden, Edinburgh. *O. R.*—Orchid Review. *Orchis.*—Orchis. Beilage zur Gartenflora. *O. W.*—The Orchid World. *Pl. Wils.*—Plantae Wilsonianae, edited by C. S. Sargent. *R. H.*—Revue Horticole. *R. H. B.*—Revue de l'Horticulture Belge. *Sargent, T. & S.*—Sargent, Trees and Shrubs. *Späth, Cat.*—L. Späth, General Nursery Catalogue. *T. H.*—La Tribune Horticole. *Veitch, N. H. P.*—J. Veitch & Sons, New Hardy Plants from Western China.

The abbreviations in the descriptions of the plants are :—*diam.*—Diameter. *ft.*—Foot or Feet. *G.*—Greenhouse. *H.*—Hardy. *H. H.*—Half-hardy. *in.*—Inches. *S.*—Stove.

Abies Douglasii Fletcheriana. *See* **Pseudotsuga.**

Abutilon Agnesae. (*B. P.* x. 129.) Malvaceae. G. An annual with rather large ovate-suborbicular leaves, deeply cordate at the base, and rather large yellow flowers borne singly on long axillary peduncles. Italian Somaliland. (Palermo B. G.)

Acanthopanax sessiliflorus var. **parviceps.** (*M. D. G.* 1912, 192.) Araliaceae. H. Distinguished from the type in being dwarfer, and in its denser more erect habit. North China. (Arnold Arboretum.)

Acer Wilsonii. (*Sargent, T. & S.* i. 157, t. 79 ; *G.C.* 1912, li. suppl. xix.) Sapindaceae. H. Leaves usually 3-lobed, 3–5 in. long, 3½–4 in. broad, membranous, dark yellowish-green above, lighter green below, glabrous except for tufts of whitish hairs in the axils of the secondary veins ; petioles slender, 1¼–2 in. long. Flowers in nodding glabrous panicles 2–2½ in. long. Fruit with broad wings spreading horizontally. Central China. (Hon. Vicary Gibbs ; Arnold Arboretum.)

***Aconitum Delavayi.** (*Bees, Cat.*, no. 36, 1912, 18.) Ranunculaceae. Flowers large, lavender-purple, produced later than those of the summer-flowering species and earlier than those of *A. autumnale*. Yunnan, China. (Bees, Ltd.)

Acriopsis Ridleyi. (*O. R.* 1912, 160.) Orchidaceae. S. Pseudobulbs broadly ovoid, compressed. Leaves linear, 3–4 in. long. Raceme lax-flowered. Sepals and petals yellow, sparingly spotted with crimson. Lip white with crimson lamellae on the claw ; lateral lobes small, oblong, obtuse ; middle lobe large, orbicular or transversely oblong. See *Hook f. Fl. Brit. Ind.* vi. 79. Singapore. (Sir Trevor Lawrence.)

Actinidia chinensis foemina. (*Veitch, N. H. P.* 1912, 9.) Ternstroemiaceae. H. The female form of the plant recorded in the list of 1903. The flowers are deeper-coloured than those of the male form. Central China. (J. Veitch & Sons.)

Adiantum cuneatum var. **micropinnulum.** (*G. C.* 1912, lii. 289, f. 129 ; *G. M.* 1912, 796.) Filices. S. Raised from the variety *gracillimum*. Young fronds tinted with rosy bronze, very much divided, the ultimate divisions being very small. (H. B. May & Sons.)

***Adiantum Siebertianum.** (*G. C.* 1912, li. suppl. xv.; *G. M.* 1912, 637.) S. A new and attractive species, with curious elongated fronds. Australia. (F. Sander & Sons.)

***Aethionema amoenum.** (*G. C.* 1912, lii. 199, f. 91.) Cruciferae. H. Similar in habit to *A. pulchellum*, but it has rather long leaves and much larger pale pink flowers. Armenia. (Kew.)

***Aethionema Kotschyi.** (*G. C.* 1912, lii. 199.) H. A very dwarf plant, only 1 or 2 in. high, very free-flowering. Country not recorded. (Kew.)

***Akania Hillii.** (*K. B.* 1912, 379; *B. M. t.* 8469.) Akaniaceae. G. This plant, which has been made the type of a new natural order allied to Sapindaceae, has been in cultivation for many years under the name of *Lomatia Bidwillii*, but did not flower till recently. It is a tree with unequally pinnate leaves having long narrow spiny-toothed leaflets, and long axillary panicles of white flowers. Petals 5, obovate-oblong, clawed, 4–5 lin. long Stamens usually 8. Australia. (Kew.)

***Alocasia colossea.** (*G. M.* 1912, 637.) Araceae. S. Leaves large, cordate, light green; petiole pale creamy green. (F. Sander & Sons.)

***Alocasia Micholitziana.** (*G. C.* 1912, li. suppl. xv., f. 9.) S. Leaves large, sagittate, waved at the margin, velvety, with a white midrib; petiole long. Malaya. (F. Sander & Sons.)

Aloe Riccobonii. (*B. P.* xi. 18, t. 1.) Liliaceae. G. Intermediate between *A. capitata* and *A. arborescens* and perhaps a hybrid between these species. (Palermo B. G.)

Aloe Steudneri. (*B. M.* t. 8448.) S. Leaves about 25, in a dense rosette 1 yd. across, about 2 ft. long, 5–6 in. broad at the base, with a somewhat rose-coloured toothed margin. Peduncles erect, simple or sparingly branched, nearly 3 ft. high; branches 6–10 in. long. Flowers about 2 in. long, over ½ in. broad; segments linear-oblong, the 3 outer deep red, the 3 inner rose-pink below, dark yellow at the tips, with red veins. Eritrea and Abyssinia. (Cambridge B. G., where it first flowered in 1901; Lady Hanbury, La Mortola.)

Amorphophallus Kerrii. (*K. B.* 1912, 43.) Araceae. S. Leaf solitary; petiole about 1 yd. long; blade trisect, with the ultimate segments lanceolate, acute, 6–8 in. long, 2–3 in. broad. Peduncle 10 in. long, olive-brown, with whitish-green spots. Spathe erect, lanceolate, concave, acute, 6–7 in. long, 2 in. broad, green, with whitish-green spots. Spadix much shorter than the spathe. Siam. (Trinity Coll. B. G., Dublin.)

Ampelopsis micans. (*M. D. G.* 1912, 188.) Ampelidaceae. H. The name proposed for the plant included in the list of 1908 as *Vitis repens*. A variety (*cinerea*), which differs from the type in having the leaves shortly hirsute on both sides and 5-lobed to or beyond the middle, is recognised. Central China. (J. Veitch & Sons; Arnold Arboretum.)

***Amygdalus praecox.** (*G. C.* 1912, li. 175; *G. M.* 1912, 212 B.) Rosaceae. H. Garden hybrid between *A. persica magnifica* and *A. Davidiana alba*. (J. Veitch & Sons.) [*Prunus.*]

***Anemone demissa.** (*G. C.* 1912, li. suppl. xv.) Ranunculaceae. H. Flowers small, white, borne in clusters, on scapes about 9 in. high. China. (Bees, Ltd.)

Angraecum Andersonii. (*K. B.* 1912, 134.) Orchidaceae. S. A leafless species with short subglobose flowers, which are semi-pellucid white, with a broad emerald-green line on the sepals, a green centre to the lip, and a green column. Gold Coast. (Glasnevin B. G.)

Anthericum Mandaianum. (*G. C.* 1912, li. suppl. xv.) Liliaceae. G. A dwarf-growing plant. Leaves dark green with prominent white midrib. (W. A. Manda, South Orange, New York.)

Aralia ? Lizei. (*R. H.* 1912, 568, f. 196.) Araliaceae. G.? An elegant plant with long-stalked leathery shining green rather deeply 5-lobed leaves; lobes acute, remotely toothed. It is supposed to be a hybrid between *Aralia Moseri* and the ivy. (Lizé frères, Nantes.)

Arenaria picta. (*G. C.* 1912, lii. 416.) Caryophyllaceae. H. "A pink-flowered species, resembling *Tunica Saxifraga*." Asia Minor and Syria. (Edinburgh B. G.)

Argemone mexicana × platyceras. (*R. H.* 1912, 277, f. 89 and col. t.) Papaveraceae. H. H. Several forms, differing in the colour and size of the flowers, have been produced by hybridising these species. (P. L. de Vilmorin, Verrières-le-Buisson, France.)

***Aristolochia heterophylla.** (*G. C.* 1912, li. suppl. xix., xx.) Aristolochiaceae. H. Flowers similar to those of the "Dutchman's Pipe," with yellow bent tube and 5 small chocolate-coloured segments. Western China. (Hon. Vicary Gibbs; J. Veitch & Sons.)

Armodorum siamense. (*Orchis*, 1912, 67, t. 13, ff. 9–18.) Orchidaceae. S. Similar to *A. labrosum* (*Renanthera bilinguis*), but the flowers are somewhat larger. Sepals and petals brown, with whitish transverse bands. Lip with brown side lobes and white middle lobe. Spur yellow. Column white. Siam. (Baron von Fürstenberg, Schloss Hugenpoet, Mintard, Germany.)

Aronia melanocarpa var. **elata.** (*M. D. G.* 1912, 186.) Rosaceae. H. Taller than the type with larger leaves, many-flowered corymbs, flowers more than 5 lin. across and larger fruits. South-Eastern United States. (Arnold Arboretum.)

Asparagus gracillimus. (*G. M.* 1912, 637.) Liliaceae. G. "A very light form of *A. plumosus*." (F. Sander & Sons.)

Asparagus erectus floribundus. See **A. Lutzii.**

Asparagus Lutzii. (*G. C.* 1912, lii. 427, f. 185.) G. Garden hybrid between *A. plumosus nanus* and *A. scandens deflexus*. (P. Lutz, Bingen-on-Rhine.) [Syn. *A. erectus floribundus*; R. H. 1912, 158, ff. 51–52. *A. plumosus* var. *Lutzii*; J. H. F. 1912, 699.]

Asparagus plumosus var. **nanus.** See **A. Lutzii.**

Asparagus zuluensis. (*K. B.* 1912, 283.) G. A glabrous climbing undershrub. Branches slender, straight, spreading. Cladodes very numerous, whorled, incurved, filiform, about ½ in. long, very thin. Flowers axillary, solitary, on pedicels ¼ in. long. Zululand. (Durban B. G.)

Asplenium divaricatum elegans. (*G. C.* 1912, lii. 433; *G. M.* 1912, 960, f.) Filices. S. A very graceful form, with the fronds divided into fine linear segments. (J. J. Parker & Co.)

***Aster likiangensis.** (*G. C.* 1912, li. 400.) Compositae. H. A small plant with deep blue flowerheads about 2 in. across on stalks 3 in. long. Yunnan, China. (Edinburgh B. G.)

Aster subcoeruleus Leichtlinii. (*Bees, Cat.* no. 36, 1912, 27.) H. Stems about twice as long as those of the type, with very much larger flowerheads. (Bees, Ltd.)

***Astrantia gracilis.** (*G. M.* 1912, 794.) Umbelliferae. H. Resembles *A. minor*, but the stems are shorter, only 9–10 in. high, and the leaves are larger and less finely divided. Flowers white with a creamy tinge. Austria. (S. Arnott.)

***Begonia Cuninghamei.** (*K. B.* 1912, 340.) Begoniaceae. G. Herb about 1⅜ ft. high, with fibrous roots. Leaves obliquely elliptic-ovate, 5–6½ in. long. Cymes unisexual. Peduncle up to 5 in. long. Flowers white or more or less rose-tinted, the male with 2 broadly ovate segments about 5 lin. across, the female with 5 elliptic-oblong or ovate-elliptic segments up to about ½ in. long. Bolivia. (H. Clinton-Baker.)

***Begonia parva.** (*K. B.* 1912, 329.) S. Stems about 1 ft. long, clothed with stellate hairs. Leaves ovate, slightly unequally cordate at the base, about 4 in. long. Male flowers in forked cymes, deep rose; segments 4, the outer elliptic-oblong, the inner oblanceolate-oblong, all about ½ in. long. Female flowers solitary, deep rose; outer segments 2, elliptic-oblong, inner oblanceolate; all about ½ in. long. Congo State. (Brussels B. G.)

Begonia Sanderae. (*G. M.* 1912, 637.) G. Resembles *B. semperflorens gigantea*. Leaves red-tinged. Flowers neat, bright crimson-scarlet, in clusters. (F. Sander & Sons.)

***Berberis brevipaniculata.** (*Veitch, N. H. P.* 1912, 4, f.) Berberidaceae. H. A deciduous species forming a dense erect bush 4–6 ft. high. Stems bright red. Leaves obovate, deep green, in clusters of 4 to 7. Flowers pale yellow, in panicles. Berries bright rosy red. Western China. (J. Veitch & Sons.)

***Berberis candidula.** (*Gard.* (1912, 355.) H. The same as *B. Wallichiana pallida* of the 1904 list, not of Hook f. & Thoms.

***Berberis Coryi.** (*G. C.* 1912, lii. 321.) H. Apparently an evergreen. Leaves in clusters, spathulate, glaucous beneath. Berries round, currant-red, glaucous. China. (J. Veitch & Sons.)

***Berberis dictyophylla albicaulis.** (*Gard.* 1912, 332.) H. Appears to be of looser habit than the type; the leaves are whiter on the underside, and the stems are very glaucous. Western China. (Kew.)

***Berberis Giraldii.** (*G. C.* 1912, lii. 321, as *B. Geraldii*.) H. Berries very small, purplish-red, in very large branched clusters. China. (J. Veitch & Sons.)

Berberis koreana. (*M. D. G.* 1912, 184.) H. An ally of *B. Sieboldii* and remarkable for its almost globose coral-red shining fruits. Corea. (Arnold Arboretum.)

***Berberis Stapfiana.** (*K. B.* 1912, 35; *G. C.* 1912, lii. 288.) H. Similar to *B. Thunbergii*, but the growths are more erect and the leaves are not red-tinted. It is a dense spiny bush with deciduous oblanceolate entire leaves, racemose fascicles of yellow globose flowers, and coral- or currant-red berries borne in dense clusters. China. (M. L. de Vilmorin, Les Barres, France, &c.)

***Berberis Veitchii.** (*G. C.* 1912, lii. 321.) H. "A subevergreen with pendent clusters of numerous plum-purple oval glaucous berries." China. (J. Veitch & Sons.)

Bifrenaria Pickiana. (*Orchis*, 1912, 8, t. 1, ff. 1–7.) Orchidaceae. G. A small species, about 8 in. high. Pseudobulbs about the size of a hazelnut, 1-leaved. Leaves lanceolate, including petiole about 7 in. long and 1 in. broad. Flowers pale rose-red with a yellow crest on the lip, medium-sized. Colombia. (Herrenhausen Berggarten, Hanover.)

Brassia cyrtopetala. (*Orchis*, 1912, 118, t. 26, ff. 18–26.) Orchidaceae. G. Resembles in habit a smaller example of *B. Lanceana* from which it differs in the size of the parts of the flower and in the shape of the lip. Flowers medium-sized, yellowish, with a few large brown marks at the base of the sepals and petals, and a few brown-red dots on the lower half of the whitish-yellow lip. Colombia? (Baron von Fürstenberg, Schloss Hugenpoet, Mintard, Germany.)

Brasso-cattlaelia beardwoodensis. (*G. C.* 1912, li. 369.) Orchidaceae. G. Garden hybrid between *Laelio-cattleya Violetta* and *Brassavola Digbyana*. (Col. J. Rutherford.)

Brasso-cattleya Leonardi. (*O. W.* ii. 218.) Orchidaceae. S. Garden hybrid between *Brasso-laelia Helen* and *Cattleya Mossiae*. (C. Maron, Brunoy, France.)

Brasso-cattleya Rutherfordii. (*G. C.* 1912, li. 110.) S. Garden hybrid between *Cattleya Gaskelliana alba* and *B.-c. Queen Alexandra*. (Col. Rutherford.)

Brasso-cattleya Schillii. (*O. W.* ii. 218.) G. Garden hybrid between *B.-c. Digbyano-Mossiae* and *Cattleya Mossiae*. (Armstrong & Brown.)

Buddleia variabilis grandiflora. (*Lemoine, Cat.* 1912, n. 181, 5.) Loganiaceae. H. Flowers nearly 5 lin. across, dark lilac-mauve, with a golden eye. (V. Lemoine & Son, Nancy.)

Buddleia variabilis vars. lilacina, perfecta and rosea. (*G. M.* 1912, 822.) H. Forms differing in the colour of the flowers. (Hon. Vicary Gibbs.)

Bulbophyllum chlorostachys. (*Orchis*, 1912, 66, t. 13, ff. 1–8.) Orchidaceae. S. Pseudobulbs ovoid, 1–1½ in. long, 1-leaved. Leaves ligulate, 7 in. long; petiole ¾ in. long. Scape erect about 8 in. long including the raceme. Raceme densely-flowered, cylindric, somewhat nodding. Flowers similar to those of *B. Careyanum*, but somewhat larger (about an inch long). Siam. (Baron von Fürstenberg, Schloss Hugenpoet, Mintard, Germany.)

Bulbophyllum congestum. (*K. B.* 1912, 131.) S. Allied to *B. odoratissimum* which it much resembles in habit, but the flowers are smaller, the sepals much shorter, and the lip pale yellow, not brown. Burma and South-West China. (Glasnevin B. G.)

Bulbophyllum pleiopterum. (*Orchis*, 1912, 114, t. 25, ff. 14–22.) S. Allied to *B. clavatum* and *B. conicum* and remarkable in having the rhachis of the inflorescence furnished with many short broad wings. Flowers rather small, half sunk in the rhachis. Madagascar. (Herrenhausen Berggarten, Hanover.)

***Cacalia calva.** (*M. G. Z.* 1912, 97, f.) Compositae. H.? Rootstock tuberous. Leaves basal, roundish in outline, up to 8 in. across, deeply cut into linear

lobes; petiole 10–12 in. long. Peduncle 18–20 in. high, bearing a few corymbosely arranged heads of small white tubular florets. Mexico. (Darmstadt B. G.)

*Calceolaria cana. (*B. M.* t. 8416.) Scrophulariaceae. H. H. A rather small perennial herb. Leaves in a basal tuft, oblong-lanceolate to obovate, 1¼–2¼ in. long, ⅜–¾ in. broad, entire or finely toothed, more or less densely white-woolly; petiole usually short. Scape slender, erect, including the loose cymose many-flowered inflorescence 1–1½ ft. long. Flowers violet-scented. Corolla white, suffused with rose or purple and more or less spotted with crimson or purple; upper lip small; lower lip nearly ½ in. long and ¼ in. broad. Chile. (Kew.)

*Calceolaria Forgetii. (*B. M.* t. 8436.) H. H. Undershrub, 1–1½ ft. high. Stems slender. Leaves ovate, ½–2¼ in. long, ⅓–1⅜ in. broad, irregularly toothed, shortly pubescent above, nearly glabrous beneath; petiole ⅛–½ in. long. Panicle lax, many-flowered, 6–8 in. long. Corolla 4–5 lin. long, 2½–4 lin. broad, pale yellow, with a large reddish-brown blotch at the base of the lower lip; upper lip about 2 lin. long.; lower lip obovoid-globose, 3–4½ lin. long, erect and adpressed to the upper lip. Peru. (F. Sander & Sons.) [Syn. *C. virgata*; G. C. 1912, li. 50, f. 27, not of Ruiz & Pavon.]

*Calceolaria Veitchii. (*G. C.* 1912 li. suppl. xvi, f. 14; *G. M.* 1912, June 1, suppl. 5.) H. H. Garden hybrid between *C. alba* and a seedling from *Calceolaria Golden Queen*. (R. Veitch & Son.)

Calceolaria virgata. (*G. C.* 1912, li. 50, f. 27.) See C. Forgetii.

Callicarpa Giraldiana. (*M. D. G.* 366, ff.) Verbenaceae. H. A vigorous-growing plant, making annual shoots more than 6 ft. long, with unusually large elliptic-oblong toothed leaves. It is attractive in the autumn on account of its small coloured fruits which are produced in great profusion. Northern China. (H. A. Hesse, Weener, Hanover.)

*Camellia cuspidata. (*G. C.* 1912 li. 228, 262, f. 123.) Ternstroemiaceae. H. A floriferous pyramidal evergreen bush. Leaves narrow, 2-2½ in. long. Flowers single, white, 1½ in. across. Central China. (J. Veitch & Sons.) [= *Thea cuspidata*, Kochs.]

*Camellia japonica grandiflora. (*Gard.* 1912. 81, 82, f.; *J. of H.* 1912, lxiv. 146.) H. Flowers 5–7 in. across, white, with undulate and crinkled petals in a double row. Japan. (Kew.)

*Camellia japonica magnoliaeflora. (*J. of H.* 1912, lxiv. 146.) H. Petals 10–12, forming a more or less open tubular flower, pale fresh pink. Japan. (Kew.)

Camellia Tuckiana. (*G. C.* 1912, li. 208.) G. Flowers single, about 3 in. across, delicate pink, with numerous yellow stamens. (J. T. Bennett-Poë.)

*Campanula glomerata superba. (*M. G. Z.* 1912, 8, f.) Campanulaceae. H. A fine form with larger heads of deep violet flowers, obtained by crossing the dwarf variety and *C. glomerata dahurica*. (G. Arends, Ronsdorf, Germany.)

*Campanula stenocodon. (*G. C.* 1912, lii. 207.) H. Allied to *C. rotundifolia* which it resembles in habit, but it is more slender and has much narrower stem-leaves. Flowers long, narrow, tubular, rich lilac-purple. Maritime Alps. (C. Elliott.)

Cattleya amethystoglossa var. germignyensis. (*J. H. F.* 1912, 85.) Orchidaceae. G. A very vigorous variety with broad rose-white flowers very much spotted with carmine. (C. Thiébaux, Germigny-l'Evêque, Seine-et-Marne, France.)

Cattleya Anneliae. (*O. R.* 1912, 31.) G. Garden hybrid between *C. Parthenia* and *C. chocoensis alba*. (J. Ginot, St. Etienne, France.)

*Cattleya Blackii. (*G. C.* 1912, li. 61.) G. Garden hybrid between *C. Gaskelliana alba* and *C. Mendelii alba*. (Hassall & Co.)

Cattleya Brongniartii. (*R. H.* 1912, 244.) G. Garden hybrid between *C. Vigeriana* and *C. Percivaliana*. (C. Maron, Brunoy, France.)

Cattleya Mülleri. (*G. C.* 1912, lii. 356; *O. W.* iii. 56.) G. Garden hybrid between *C. Peetersiae* and *C. Harrisoniana alba*. (F. Sander & Sons.)

Cattleya nobilis. (*O. W.* ii. 268.) G. Garden hybrid between *C. granulosa* and *C. Warneri*. (F. Sander & Sons.)

Cattleya Seligerae. (*O. R.* 1912, 199.) G. Garden hybrid between *C. Whitei* and *C. Adonis*. (C. F. Karthaus, Potsdam, Berlin.)

Cattleya semontiana. (*J. H. F.* 1912, 706.) G. Garden hybrid between *C. Trianae alba* and *C. Hardyana alba*. (O. Doin, Dourdan, France.) [This name has also been given to a hybrid between *C. aurea* and *C. Gigas Sanderiana*, recorded in the list of 1902.]

Cattleya Trianae brunoyensis. (*R. H.* 1912, 6.) G. Sepals and petals mauve, the latter nearly 5 in. long and more than 3 in. broad. Lip of very fine shape, yellow at the throat, purple-violet at the base. (C. Maron & Son, Brunoy, France.)

Cattleya Trianae Cobbii. (*G. C.* 1912, li. 126.) G. A form with a dark line on the petals. (W. Cobb.)

Cattleya Warscewiczii Mandaiana. (*G. C.* 1912, li. 418; *O. W.* ii. 241.) G. Flowers a pure rose-red. (W. A. Manda, South Orange, New York.)

Celmisia spectabilis argentea. (*G. C.* 1912, li. suppl. xvi.; *G. M.* 1912, June 1, suppl. 5.) Compositae. H. Radical leaves lanceolate, entire, about 8 in. long, silky-tomentose above, densely felted beneath. Scapes tomentose, about 1 ft. high. Flower-head solitary, 3 in. across; ray-florets pure white; disc-florets yellow. New Zealand. (Bees, Ltd.)

Ceratolobus Forgetiana. See **Socratea Forgetiana.**

Cereus serratus. (*M. K.* 1912, 185.) Cactaceae, G. An erect plant with 3- or 4-angled branches; ribs regularly and narrowly crenate; spines yellow, needle-like, strong, up to about 7 lin. long, 7 radial and 2 central. Flowers showy, campanulate-funnelshaped, about 5 in. long; outer perianth-segments lanceolate, blood-red; inner elliptic, purple. Probably Guatemala. (F. de Laet, Contich, Belgium.)

***Cereus Silvestrii.** (*B. M.* t. 8426; *M. K.* 1912, 11; *M. G. Z.* 1912, 337, f.) G. Stems prostrate or the central one ascending, 1½–4 in. long, 4–7 lin. thick, 8-angled; spine-cushions very closely set; spines 16–20 to a cushion, setaceous, 1 lin. long or less. Flowers brilliant orange-scarlet, funnelshaped; tube 1–1½ in. long; segments lanceolate, spreading, ½–¾ in. long, 2 lin. broad. Argentina. (Haage & Schmidt, Erfurt.)

Cereus Vaupelii. (*M. K.* 1912, 106, 127.) G. A climbing species with rigid sparingly rooting branches setose at the apex; ribs 5; areolae small, tomentose; spines minute, scabrid; radial 2–5, often wanting; central 1 or 2. Flowers vanilla-scented, broadly funnelshaped, including ovary 10 in. long; outer segments linear, yellow; inner segments lanceolate, white. Hayti. (Dahlem B. G.; Haage & Schmidt, Erfurt.)

***Ceropegia Thorncroftii.** (*B. M.* t. 8458.) Asclepiadaceae. S. Roots thick and fleshy, in a cluster. Stem twining. Leaves somewhat fleshy, ovate or elliptic-ovate, 1–2¼ in. long, ½–1¾ in. broad, shortly petiolate. Cymes axillary, pedunculate, many-flowered. Corolla white, with purple blotches; tube 1 in. long, curved, inflated at the base, narrowly cylindric above; lobes linear-oblong, over ¼ in. long, erect, then incurved, connate at the tips. Transvaal. (Cambridge B. G.)

Cheiranthus mutallio. (*R. H.* 1912, 211; *J. H. F.* 1912. 184.) Cruciferae. H. H. Garden hybrid between *C. mutabilis* and *Erysimum Allionii*. (Cayeux & Le Clerc, Paris.)

***Chironia laxa.** (*B. M.* t. 8455.) Gentianaceae. G. A glabrous herb with loosely branched stems 1–1½ ft. long. Leaves opposite, lanceolate, entire, ¾–1 in. long, 1–1½ lin. broad. Flowers showy, 1–3 on each branch. Peduncles ½–1¼ in. long. Corolla pale magenta; tube narrowly cylindric, half as long again as the calyx; lobes ovate-lanceolate, somewhat acuminate, 5–6 lin. long, 2–2½ lin. broad. Cape Colony. (Cambridge B. G.)

Chondrorhyncha Lipscombiae. (*K. B.* 1912, 133.) Orchidaceae. S. Allied to *C. albicans* from which it is distinguished by its longer leaves, larger flowers, and subtrilobed lip. Leaves up to 12 in. long. Flowers white, with some light purple veins on the lip. Sepals and petals ¾–1 in. long. Lip nearly 1 in. long and broad. Panama. (Mrs. Lipscomb.)

Chrysanthemum ochroleucum. (*M. G. Z.* 1912, 338, f.) Compositae, G. A glabrous undershrub with obovate-cuneate coarsely toothed leaves and pale yellow ray-florets. Lanzarote, Canary Islands. (O. Burchard, Puerto de Orotava, Tenerife.) [Syn. *Argyranthemum ochroleucum*, Webb.]

***Cineraria hybrida.** (*G. C.* 1912, li. 266; *G. M.* 1912, 337, f.) Compositae, G. Garden hybrid between

C. cruenta [*Senecio cruentus*] and *Senecio tussilaginis*. (J. Veitch & Sons.)

Cirrhopetalum Micholitzii. (*K. B.* 1912, 132.) Orchidaceae. S. Pseudobulbs ovoid or ovoid-oblong, up to 1 in. long, 1-leaved. Leaves oblong or lanceolate-oblong, 3–3½ in. long. Scapes slender, about 6 in. long. Umbels 8–12-flowered. Flowers about ¾ in. long. Lateral sepals deep yellow. Dorsal sepal and petals blotched with dark purple on a pale ground. Annam. (Glasnevin B.G.; Stuart Low & Co.)

Cirrhopetalum miniatum. (*G. C.* 1912. lii. 254, 271; *O. R.* 1912, 320.) S. Similar to *C. gracillimum* especially in its caudate almost thread-like lateral sepals, and in the strongly ciliate dorsal sepal and petals, but it differs in having vermilion-coloured flowers with the hairs of the dorsal sepal and of the petals yellow. Annam. (F. Sander & Sons.)

Citrus Bigaradia var **Fitaliae.** (*B. T. O.* 1912. 263.) Rutaceae. G. Possibly a natural hybrid. It is a moderately large tree with oblong-lanceolate leaves, fragrant flowers 1–1½ in. across, and globose or slightly oblong fruits about 3 in. across, which have a reddish bitter pulp. (Istituto Agrario Castelnuovo, Italy.)

Clematis akebioides. (*Veitch, N. H. P.* 1912, 9.) Ranunculaceae. H. A deciduous climber. Leaves trifoliolate, pale green; leaflets trifid, coarsely serrate. Flowers small, pale yellow. China. (J. Veitch & Sons.)

Clematis Davidiana × Vitalba. (*Gard.* 1912, Aug. 17, x.) H. Garden hybrid. (Miss Jekyll.)

***Clematis Gourieana.** (*Veitch, N.H.P.* 1912, 9, as *C. Gouriana.*) H. A deciduous climber. Leaves of 5 stalked leaflets. Flowers small, cream-yellow, fragrant, in dense clusters. China, India, Ceylon and Malaya. (J. Veitch & Sons.)

Clematis splendens. (*Bees, Cat.* no. 36, 1912, 104.) H. Leaves resembling those of [illegible]. Flowers in crowded clusters, nodding, bell-shaped, straw-yellow tinged with green, aromatic. Western China. (Bees, Ltd.)

Cocculus variiformis. (*G. C.* 1912, lii. 402.) See **Sinomenium diversifolium.**

***Codonopsis Bulleyi.** (*J. of H.* 1912, lxiv. 237, f.). Campanulaceae. H. A small-growing species with a prostrate habit, silvery grey ovate leaves, and soft lavender-blue bell-shaped flowers. Western China. (Bees, Ltd.)

Coelogyne formosa. (*Orchis*, 1912, 112, t. 25, ff. 1–6.) Orchidaceae. S. A fine species differing from *C. speciosa* in the shape of the lip, which has entire undulate keels. Sepals flesh-coloured. Lip densely spotted with brown. Column white, marked with pale brown in front. Sumatra. (Baron von Fürstenberg, Schloss Hugenpoet, Mintard, Germany.)

***Corokia virgata.** (*B. M.* t. 8466.) Cornaceae. G. A new species differing from *C. Cotoneaster* in its slender straight branches, larger leaves, and in the scales at the base of the petals, which are divided almost to the base into a few narrow segments. New Zealand. (Kew.)

Corylopsis multiflora. (*G. C.* 1912, li. 160; *G. M.* 1912, 191 (f.), 213.) Hamamelidaceae. H. An elegant free-flowering shrub. Flowers small, yellowish-green, borne in pendulous catkin-like racemes, appearing before the leaves. China. (Miss Willmott.)

Cotoneaster ambigua. (*Pl. Wils.* i. 159.) Rosaceae. H. Distinguished from *C. acutifolia* by its generally ovate much less pubescent leaves and more densely pubescent calyx, and from *C. moupinensis* by its smaller leaves, inflorescences and flowers and its globose fruit. Western China. (J. Veitch & Sons; Arnold Arboretum.)

***Cotoneaster amoena.** (*G. C.* 1912, li. 2, f. 1; *Pl. Wils.* i. 165.) H. A new species allied to *C. Franchetii*, but distinguished by its dwarfer more compact habit, smaller leaves, and aristate sepals as long at the petals. It reaches a height of 3–5 ft. Fruits closely clustered, ovoid, dull red on the exposed side, yellowish on the other. Yunnan, China. (J. Veitch & Sons.)

Cotoneaster apiculata. (*Pl. Wils.* i. 156.) H. Shrub, up to about 6 ft. high, with stout spreading branches. Leaves deciduous, orbicular or orbicular-ovate, apiculate, rarely emarginate, 2–6 lin. long, 2–4½ lin. broad; petiole ½–1 lin. long. Flowers unknown. Fruits solitary, erect, globose, 3½–4 lin. thick, scarlet. Western China. (Arnold Arboretum.)

***Cotoneaster Dielsiana.** (*Pl. Wils.* i. 166.) H. This is the correct name for the plant included in the list of 1907 under the name of C. applanata. A form with larger and broader leaves and larger fruits has been distinguished as *C. Dielsiana* forma *major*. Central China. (J. Veitch & Sons.)

Cotoneaster Dielsiana var. **elegans.** (*Pl. Wils.* i. 166 ; *G. C.* 1912, lii. 289.) H. Differs from the typical form in its thinner but more persistent leaves and in its smaller pendulous brick or orange-red fruits. Western China. (Hon. Vicary Gibbs.)

***Cotoneaster divaricata.** (*Pl. Wils.* i. 157 ; *G. C.* 1912, lii. 182 ; *G. M.* 1912, 687.) H. A new species most nearly related to *C. Simonsii*, but easily distinguished by its smaller leaves, constantly fewer-flowered racemes, less acuminate sepals, and by its ovoid darker red fruits ; it is very distinct in habit and general appearance. Western China. (Arnold Arboretum ; Hon. Vicary Gibbs.)

Cotoneaster foveolata. (*Pl. Wils.* i. 162 ; *M. D. G.* 1912, 195.) H. Shrub, up to about 10 ft. high, with a somewhat spreading habit. Leaves deciduous, elliptic or elliptic-ovate, up to 2½ in. long and 1¼ in. broad. Corymbs 3–7 flowered. Flowers white, tinted with rose. Fruit globose, black. Central China. (Arnold Arboretum ; H. A. Hesse, Weener, Hanover.)

***Cotoneaster Harroviana.** (*G. C.* 1912, li. 3 ; *Pl. Wils.* i. 173.) H. A new species somewhat resembling *C. pannosa*, but it is stronger-growing, with larger more coriaceous shining green leaves, which are finally glabrescent beneath, and larger cymes having more numerous flowers. It is a loosely-branched shrub, 6–7 ft. high ; branchlets spreading-pendulous. Flowers pure white. Fruits rather small, ovoid, brilliant red. Yunnan, China. (J. Veitch & Sons.)

Cotoneaster obscura. (*Pl. Wils.* i. 161.) H. A very much-branched shrub, up to 10 ft. high. Leaves deciduous, usually elliptic-ovate, 1–1⅔ in. long, 7–10 lin. broad ; petiole 1–1½ lin. long. Flowers unknown. Fruits 3–5, in racemes terminating short lateral branches, ovoid-pyriform, 4 lin. long and broad, dark red. Western China. (J. Veitch & Sons.)

***Cotoneaster salicifolia** var. **rugosa.** (*G. C.* 1912, lii. 289 ; *G. M.* 1912, 796 ; *Pl. Wils.* i. 172.) H. A subevergreen shrub with weeping or pendulous branches. Leaves lanceolate about 2 in. long and ¾ in. broad, much wrinkled, downy beneath. Berries bright scarlet, globose, ¼ in. across, borne in clusters of 6 to 12 or more. Central China. (Hon. Vicary Gibbs.)

Cotoneaster Zabelii. (*G. C.* 1912, lii. 289 ; *G. M.* 1912, 815 ; *M. D. G.* 1912, 196.) H. A subevergreen shrub of vigorous habit. Leaves ovate, pointed, about 1½ in. long and ⅔ in. broad, downy beneath. Berries dull crimson, rather large, flattened at the apex, borne in clusters of 3 to 9 or more on short spurs. Central China. (Hon. Vicary Gibbs ; H. A. Hesse, Weener, Hanover.)

***Cotyledon procurva.** (*K. B.* 1912, 276.) Crassulaceae. G. Small, glabrous. Leaves narrowly cuneate, 1¼–1¾ in. long. Peduncle terminal, ¾–1¼ in. long. Flowers solitary or in twos or threes, subsessile. Corolla curved forward ; tube cylindric, 5 lin. long, sordid purple ; lobes lanceolate, about 2 lin. long, pale rose-purple. South Africa. (Kew.)

***Cotyledon racemosa.** (*G. C.* 1912, li. 348.) G. Plant 6–8 in. high, Main stem ⅔ in. thick, erect, branched in the upper part, leafless ; branches densely leafy. Leaves sessile, linear-lanceolate or narrowly oblanceolate, acute, ¾–2 in. long, 2½–5 lin. broad. Peduncles terminal, solitary on each branch. Pedicels 2–5 lin. long. Flowers erect. Corolla 5-lobed ; tube 4 lin. long, pale green ; lobes broadly ovate, white, 3 lin. long. Stamens 10. South-west Africa. (Kew.)

***Cotyledon subrigida.** (*B. M.* t. 8445.) G. A handsome species nearest allied to *C. gibbiflora* among the Cotyledons in cultivation. Leaves about 18 in a rosette, oblanceolate or almost lanceolate, 4–6 in. long, 2–2½ in. broad, glaucous, with a red margin. Peduncles axillary, about 1½ ft. high. Pedicels up to ⅔ in. long. Corolla ⅘ in. long, ⅖ in. broad, urn-shaped 5-angled, brilliant orange above, yellowish lower down. Mexico. (Washington B. G. ; Kew.)

***Crassula Barklyi.** (*B. M.* t. 8421.) Crassulaceae. G. Stem 1–2 in. high, simple or branching at the base. Leaves opposite, closely imbricate, almost erect, connate at the base, the lower 2–3 lin. long, 6–7 lin. broad, the upper gradually smaller. Flowers nearly sessile in a dense terminal head. Corolla gamopetalous, deeply 5-lobed, white ; lobes linear, 3 lin. long or more. Little Namaqualand. (Kew.)

*Crassula densa. (*K. B.* 1912, 275.) G. A very distinct species. Plant 1¾–2½ in. high, densely branched. Leaves crowded at the ends of the branches, subtrigonous, about ⅛ in. long. Peduncle terminal, 1½ in. long. Flowers small, white, crowded in a head 5 lin. thick. South Africa. (Kew.)

*Crassula inamoena. (*K. B.* 1912, 275.) G. Related to *C. paniculata* from which it is distinguishable by its narrower subdistichous leaves, heeled at the base on the upper side and destitute of cilia. Flowers sessile, crowded in heads about ½ in. thick, white. South Africa. (Kew.)

*Cupressus formosensis. (*G. C.* 1912, li. 132, ff. 53 (2), 54.) Coniferae. H.? A very large tree, in a wild state sometimes reaching a height of 195 ft. with a stem 20 ft. in diam. It is closely allied to *C. pisifera*, but the growths are dull green on both sides or covered more or less on the under side with an irregularly diffused whitish bloom, the leaves are shortly, not long-mucronate, the cones are ellipsoid, and the oval seeds have narrow wings. Syn. *Chamaecyparis formosensis*, Matsumura. Formosa. (H. Clinton-Baker.)

Cyananthus Forrestii. (*G. C.* 1912, lii. 416; *N. B. G. Edinb.* v. 173.) Campanulaceae. H.? Plant 6–12 in. high. Stems ascending, branched, sparingly pilose. Leaves small, shortly stalked or sessile, obovate. Corolla cylindric, 7–10 lin. long, 2½ lin. broad, pale blue. Yunnan, China. (Edinburgh B. G.)

Cyclamen persicum Schwerinae. (*Gfl.* 1912, 119, f. 14.) Primulaceae. G. The name given to a race in which the corolla is broadly campanulate, resembling in shape that of *Convallaria majalis*. (F. Graf von Schwerin, Wendisch-Wilmersdorf, Germany.)

Cymbidium Schlegelii. (*G. C.* 1912, li. 62; *G. M.* 1912, 79, 87, f.) Orchidaceae. G. Garden hybrid between *C. insigne* and *C. Wiganianum*. (J. & A. A. McBean.)

*Cynoglossum coeruleum. (*G. C.* 1912, lii. 444, f. 189.) Boraginaceae. H.? Erect, neat in habit, 12–18 in. high. Leaves narrow, the longest about 3 in. long. Flowers bright blue, freely produced in panicled cymes. East Tropical Africa. (Barr & Sons.)

Cypripedium Arthurianum var Sanderae. (*O. R.* 1912, 29.) Orchidaceae. S. Garden hybrid between *C. Arthurianum* and *C. insigne Sanderae*. (W. R. Lee) [*Paphiopedilum.*]

Cypripedium auburnense. (*O. R.* 1912, 127.) S. Garden hybrid between *C. Euryades* and *C. Leeanum*. (J. J. Holden.) [*Paphiopedilum.*]

Cypripedium birkdalense. (*O. R.* 1912, 122.) S. Garden hybrid between *C. insigne Sanderae* and *C. Thalia magnificum*. (J. J. Holden.) [*Paphiopedilum.*]

Cypripedium caudatum Sanderae. (*G. C.* 1912, li. 29; *O. R.* 1912, 92.) S. A yellow-tinted form with very long drooping petals. (F. Sander & Sons.) [*Phragmopedilum.*]

Cypripedium Curto-phyllum. (*O. W.* ii. 122.) S. Garden hybrid between *C. Curtisii* and *C. glaucophyllum*. (H. T. Pitt.) [*Paphiopedilum.*]

Cypripedium Franchetii. (*O. R.* 1912, 358, f. 49.) H. Very similar to *C. macranthum*, differing chiefly in its more hairy foliage. Central and Western China. (Arnold Arboretum.)

Cypripedium Guillemetti. (*J. H. F.* 1912, 91.) S. Garden hybrid between *C. insigne* and *C. Spicerianum*. (Asile Saint-Maurice, Seine, France.) [*Paphiopedilum.*]

Cypripedium Hassallii. (*G. C.* 1912, lii. 202.) S. Garden hybrid between *C. bingleyense* and *C. Charlesworthii*. (Hassall & Co.) [*Paphiopedilum.*]

Cypripedium hortonense. (*G. C.* 1912, li. 369.) S. Garden hybrid between *C. Victor* and *C. Beeckmanii*. (F. A. Hindley.) [*Paphiopedilum.*]

Cypripedium viridissimum. (*G. C.* 1912, li. 14.) S. Garden hybrid between *C. villosum auriferum* and *C. aureum virginale*. (W. Shackleton.) [*Paphiopedilum.*]

*Daphne retusa. (*B. M.* t. 8430; *Veitch, N. H. P.* 1912, 4, f.) Thymelaeaceae. H. A dwarf evergreen shrub of compact habit. Leaves oblong-lanceolate, 1¼–3 in. long, ½–⅞ in. broad, coriaceous, glabrous, shining dark olive-green; petiole short, broad. Flowers umbellately arranged, fragrant, white shaded with rosy violet, rather more than ½ in. long. Western China. (J. Veitch & Sons.)

Daphne Thauma. (*G. C.* 1912, lii. 22, f. 9.) H. Natural hybrid between *D. rupestris* [*D. petraea*] and *D. striata*. Tyrol. (R. Farrer.)

Datura coccinea. See D. De Noteri.

Datura De Noteri. (*Jard.* 1912, 238.) Solanaceae. G. Supposed to be an annual. It grows about 3 ft. high and has brilliant red trumpet-shaped fragrant flowers produced in great profusion. South Africa. (R. de Noter, Bondy, Seine, France.) [Syn. *Datura coccinea*; J. H. F. 1912, 652.]

***Delphinium divaricatum.** (*R. H.* 1912, 512, f. 180.) Ranunculaceae. H. Closely allied to *D. Consolida*, but it is taller, much more branched, with extremely slender branches, and it has smaller but much more abundant flowers, which are produced over a longer period. Flowers bright reddish-violet, ⅝ in. broad. Caucasus and Caspian Region. (Vilmorin-Andrieux & Co., Paris.)

Delphinium Purdomii. (*K. B.* 1912, 380.) H. Flowers blue, in a somewhat lax raceme. Posterior sepal broadly elliptic, acuminate, about 1 in. long and ⅝ in. broad; other sepals much smaller; spur straight, ⅝ in. long. Posterior petals 1½ in. long, bifid at the apex; lateral up to 2½ lin. long. Kansu, China. (J. Veitch & Sons.)

***Dendrobium Dalhousieanum luteum.** (*G. C.* 1912. li. suppl. xxi.; *G. M.* 1912, June 1, suppl. 5.) Orchidaceae. S. "A very distinct form with sulphur-yellow tinted flowers and the usual crimson discs at the base of the lip." (Sir G. Holford.)

***Dendrobium Imthurnii.** (*K. B.* 1912, 131, 206; *B. M.* t. 8452.) S. A new species, probably the most robust of all the Dendrobiums in cultivation. Pseudobulbs 3–4½ ft. high, thick at the base, somewhat narrowed upwards, leafy. Leaves elliptic-oblong, 3–4 in. long, 1¾–2¼ in. broad. Racemes axillary, about 14 in. long, many-flowered. Flowers of medium size, white, with lilac streaks on the lateral lobes of the lip. New Hebrides. (Kew.)

Dendrobium monophyllum. (*O. R.* 1912, 208.) S. Somewhat like a *Bulbophyllum* in habit. Rhizomes stout, woody. Pseudobulbs oblong, 1 in. long or more, with 1 or 2 oblong leaves, 4–6 in. long. Racemes erect, rather 1-sided, with 9–15 greenish-yellow flowers nearly ½ in. long. Reintroduced; it was in cultivation in 1871. Queensland and New South Wales. (Sir J. Colman.)

Dendrobium rosellum. (*O. R.* 1912, 295.) S. Nearly allied to *D. Serra*, Lindl., but its flowers are larger and rose-coloured, not white, with a differently-shaped lip. Borneo. (Hon N. C. Rothschild.)

Dendrobium spurium. (*G. C.* 1912 li. 423.) S. A distinct and singular species. Stems slender at the base, thickened above, 9–12 in. high, bearing 2 or 3 terminal leaves. Flower solitary, about ⅝ in. across, on a slender pedicel arising from one of the internodes below the leaves. Sepals and petals white. Lip with a narrow stalked base and broad orbicular front; sides incurved or cupped, yellowish, with pink veins and streaks. Syns. *D. euphlebium*, Rchb. f.; *Aërides spurium*, Lindl., etc. Singapore, Java, Borneo. (Hon. N. C. Rothschild.)

Dendrobium Wolterianum. (*Orchis*, 1912, 65, t. 12, ff. 17–24.) S. Stems cylindric, about 6 in. long, apparently 4–6-leaved. Raceme about ⅝ in. long, densely many-flowered. Flowers rose-coloured. Sepals and petals about 2 in. long. Lip ½ in. long, very narrow. New Guinea. (P. Wolter, Magdeburg, Germany.)

***Deutzia crenata.** (*R. H.* 1912, 528.) Saxifragaceae. H. *D. crenata* var. *erecta* and *D. crenata* var. *formosa* are garden hybrids between *D. crenata candidissima* and *D. Vilmorinae*. (V. Lemoine & Son, Nancy.)

Deutzia grandiflora. (*M. D. G.* 1912, 185, without description.) H. Leaves ovate, up to 2 in. long, acute, denticulate, hoary and scabrid beneath; petiole ½ in. long. Peduncles terminal, 1–3-flowered. Calyx 3 lin. long, the tube hoary with stellate hairs. Petals erect-spreading, obovate, obtuse, about 7 lin. long. See *Bunge, Enum. Pl. China*, 30, and *Maxim. Rev. Hydrung. Asiae Or.* 30. Northern China. (Arnold Arboretum.)

***Deutzia Veitchii.** (*G. C.* 1912, li. suppl. xvi.; *Veitch, N. H. P.* 1912, 4, f.) H. Shrub about 3 ft. high. Leaves 3½ in. long, 1 in. broad, hispid, finely serrate. Corymbs terminal on short branchlets. Flowers rich deep rose in bud, bright rose when fully expanded, 1 in. across. Western China. (J. Veitch & Sons.)

Didymocarpus Veitchiana. (*N. B. G. Edinb.* v. 154.) Gesneraceae. G. Perennial herb, up to 8 in. high. Leaves in 2 to 4 pairs, ovate, unequally and shortly cordate at the base, serrate, up to 4 in. long and 2½ in. broad; petiole up to 1½ in. long. Cymes axillary, few-flowered. Corolla tubular, nearly 1¾ in. long, lilac, with about 16 longitudinal purple lines. Yunnan, China. (J. Veitch & Sons; Edinburgh B. G.)

Dieffenbachia Sanderae. (*G. M.* 1912, 637.) Araceae. S. Leaves very broad oval, green, mottled with cream-colour; petiole stem-clasping. (F. Sander & Sons.)

Diervilla hybrida styriaca. (*M. D. G.* 1912, 1, col. t., as *Diervillea*.) Caprifoliaceae. H. A seedling from a garden hybrid which is not indicated. It flowers very profusely. Corolla narrowly funnel-shaped, pale red, 1½–1¾ in. long. Syn. *Weigela styriaca*; M. G. Z. 1912, 296. (W. Klenert, jun., Graz.)

***Dombeya Calantha.** (*B. M.* t. 8424.) Sterculiaceae. S. An erect shrub, 11–12 ft. high. Leaves acuminately 3–5-lobed, about 12 in. across, coarsely toothed, cordate at the base, stellate-pubescent above, densely pubescent or tomentose beneath; petiole 8–9 in. long. Cymes corymbiform, about 15-flowered. Peduncles 6–8 in. long. Pedicels 1–1½ in. long. Corolla rose-coloured, about 1½ in. across. British Central Africa. (Kew.)

Dombeya Davaei. (*R. H.* 1912, 177, ff. 56–57.) G. Garden hybrid between *D. spectabilis* and *D. natalensis*. A form differing in having pure white instead of rose-coloured flowers has been named *D. Davaei* var. *alba*. (Havre B. G.)

Dracaena Mandaiana. (*G. C.* 1912, li. suppl. xv.) Liliaceae. S. Leaves rose-coloured. (W. A. Manda, South Orange, New York.)

Dracaena perelegans. (*G. M.* 1912, 637.) S. Leaves long, narrow, recurving, coloured red, pink, and green. Solomon Islands. (F. Sander & Sons.)

Drimia oligosperma. (*K. B.* 1912, 363.) Liliaceae. G. A fine species having much branched inflorescences over 6 ft. high, and beautiful white star-shaped flowers which open late in the afternoon. Probably South Africa. (Glasnevin B. G.)

Echinocactus myriostigma var. **nuda.** (*M. K.* 1912, 136.) Cactaceae. G. Stem almost globose, shining olive-green, spineless and quite destitute of the tufts of wool found in the type. (R. Graessner, Perleberg, Germany.)

Echinocactus rafaëlensis. (*M. K.* 1912, 163.) G. A tufted species. Stem globose or cylindric-globose, bright green; apex somewhat depressed and sparingly clothed with whitish wool; ribs 13–20; radial spines 7–9, curved, up to about 1½ in. long; central 1, longer. Flowers unknown. Seeds small, black. Mexico. (Darmstadt B. G.; R. Graessner, Perleberg, Germany.)

Echinocactus violaciflorus. (*M. K.* 1912, 102, f.) G. Stem simple, at first globose, then columnar, 2 in. high; ribs up to 35, deeply crenate; spines bent backwards, 3 linear-lanceolate, 1½ in. long, up to 2½ lin. broad at the base, yellow with brown tips, 4 or 5 circinnate, subulate, 3½–6 lin. long, white. Flowers white with violet stripes, 1 in. long, 1½ in. across. Mexico. (F. de Laet, Contich, Belgium.)

Echinocereus Weinbergii. (*M. K.* 1912, 83.) Cactaceae. G. Erect, scarcely tufted. Stem about 5 in. high, globose, finally conical; ribs 15, straight, at first incised; areolae very close together; spines 9–12, all radial, 1½–6 lin. long, finally yellowish. Flowers conical, rose-coloured, about 1½ in. across. North America, without precise locality. (Haage & Schmidt, Erfurt.)

Echinopsis minuscula. (*R. H.* 1912, 84, f. 25 and col. t.) Cactaceae. G. A very small free-flowering plant, globose, ¾–2½ in. across. Tubercles conical, short, arranged in 16–20 spiral series. Spines small, almost setaceous, whitish, varying from 10–30, according to the age of the plant. Flowers brilliant red, 1¼–1½ in. long and broad, arising on the lower tubercles. First introduced in 1887. Argentina. (Paris B. G.)

Echium truncatum. (*G. C.* 1912, li. 306, 368, f. 179; *G. M.* 1912, 376.) Boraginaceae. G. A garden name for *E. candicans*.

Epidendrum laterale. (*G. C.* 1912, lii. 202; *O. R.* 1912, 319.) Orchidaceae. G. Remarkable in having the inflorescence produced on a rudimentary pseudobulb as in *E. Stamfordianum*. Flowers not described. Central America. (J. J. Neale.)

Epidendrum Stallforthianum. (*G. C.* 1912, li. 114, f. 49.) G. A new species similar in habit to *E. nutans*, but it is distinguished from this and allied species by the rough rhachis of the panicle, rough ovaries and the characteristic flower-stalks. Inflorescence branching at the base, thereafter simple to the top. Sepals oblong, 5 lin. long, 1 lin. broad, dull brown. Petals filiform, pale brown. Lip about 5 lin. long, pale brown. Column ivory-white. The flowers have a peculiar and rather disagreeable odour. Mexico. (Stallforth, Wiesbaden.)

Epidendrum tripunctatum. (*O. R.* 1912, 208.) G. In cultivation in 1881 (included in the list, 1876–96), but lost. It has now been re-introduced. (S. Flory.)

Eria chrysobractea. (*Orchis*, 1912, 7, t. 1, ff. 8-15.) Orchidaceae. S. Stems cylindric, somewhat thickened from an attenuated base, about 6 in. long, usually 4-leaved. Leaves lanceolate-ligulate, up to 5 in. long and ⅔ in. broad. Raceme 2–3-flowered. Bracts large, golden- or orange-yellow. Flowers medium-sized, snow-white, with a delicate purple-red border to the front of the lip. Siam. (Baron von Fürstenberg, Schloss Hugenpoet, Mintard, Germany.)

Eria Fletcheri. (*G. C.* 1912, lii. 476.) S. "A curious dwarf species with small spherical pseudobulbs, many of them bearing a single cream-white flower on a woolly stalk." Country not stated. (Sir Trevor Lawrence.)

Eriobotrya japonica var. **variegata.** (*G. C.* 1912, li. suppl. xv.) Rosaceae. G. Leaves variegated with irregular markings of pale green, dark green and white. (F. Sander & Sons.)

***Erodium olympicum.** (*G. C.* 1912, li. suppl. xv.; *Bees, Cat.* no. 36, 1912, 39.) Geraniaceae. H. Stock woody, producing bushy growths with finely cut shining silvery foliage and loose cymes of relatively large dog-rose pink flowers. Macedonia and Asia Minor. (Bees, Ltd.)

***Erodium Stephanianum.** (*G. C.* 1912, lii. 416.) H. Stem villous, branched. Leaves almost glabrous, bipinnatifid; lobes linear. Peduncles 2-5-flowered. Flowers dark purple. Petals scarcely longer than the sepals. See *DC. Prod.* i. 645. Eastern Asia. (Edinburgh B. G.)

***Euonymus sanguinea.** (*Veitch, N. H. P.* 1912, 9.) Celastraceae. H. A small deciduous tree. Leaves ovate, acuminate, finely serrate, 2–3 in. long, deep green, becoming purplish-crimson in autumn. China. (J. Veitch & Sons.)

***Fagus sylvatica Dawycki.** (*M. D. G.* 1912, 366, f., as *F. silvatica Dawycki.*) Cupuliferae. H. A fastigiate form included in the list of 1907 as *F. sylvatica var. fastigiata.*

Feroniella oblata. (*B. S. B. F.* 1912, 779, t. 18 and f. A.) Rutaceae. G. The type of a new genus belonging to the tribe Citreae and closely allied to *Feronia*, from which it chiefly differs in having twice as many stamens, and filaments furnished with basal appendages which are covered by woolly hairs. It is a small spiny tree with unequally pinnate leaves, paniculate inflorescences of white very fragrant flowers up to 1 in. across, and fruits resembling in size and shape those of the mandarin orange, having an edible subacid pulp and a woody or subwoody epicarp. Indo-China. (U. S. Dep. Agric., Washington.)

***Funkia Fortunei gigantea.** (*Bees, Cat.* no. 36, 1912, 41.) Liliaceae. H. Leaves and flowers much larger than in the type. (Bees, Ltd.)

Galanthus Elwesii poculiformis. (*G. C.* 1912, li. 33.) Amaryllidaceae. H. A very robust form, with large bell-shaped flowers, the inner segments of which are entirely pure white, similar to the outer. (R Farrer.)

Galega officinalis carnea fl. pl. (*Bees, Cat.* no. 36, 1912, 42.) Leguminosae. H. Flowers double, a pretty shade of bluish-rose. (Bees, Ltd.)

Gaultheria oppositifolia. (*G. C.* 1912, lii. 109, f. 43.) Ericaceae. G. An evergreen densely branched shrub. Leaves opposite or ternate, sessile, cordate, concave, bluntly and sometimes doubly toothed, 1½–2½ in. long. Inflorescence a terminal pyramidal many-flowered panicle 3–4 in. long and broad. Flowers white, urnshaped, ⅛ in. long. New Zealand. (T. Smith, Newry.)

***Gaultheria Veitchiana.** (*G. C.* 1912, lii. 188.) H. A shrub attaining a height of about 6 ft. Leaves obovate, obovate-lanceolate or almost oblong, ¾–4 in. long, ½–1½ in. broad, subcoriaceous, glabrous above, setose

beneath. Flowers in terminal or axillary racemes about 1½ in. long, or in panicles. Calyx-lobes deltoid, acuminate, nearly 1 lin. long, ½ lin. broad. Corolla white, otherwise as in *G. Hookeri* to which the species is closely allied. Western China. (J. Veitch & Sons.)

Gentiana gentilis. (*G. C.* 1912, lii. 416; *B. S. B. F.* xliii. 491.) Gentianaceae. H. An annual free-flowering species, with small cordate-ovate leaves, and sessile purple-blue flowers 1–1½ in. long. Yunnan, China. (Edinburgh B. G.)

Gongora Tracyana. (*K. B.* 1912, 133.) Orchidaceae. S. Distinguished from *G. Scaphephorus* by having flowers only half the size and a lip with aristate lateral lobes. Sepals and petals greenish-yellow, barred and blotched with brown, the former about 7 lin. long. Lip ivory-white, with a few brown lines on the basal half, 4½ lin. long. Peru. (J. S. Bergheim; Tracy's Nursery.)

***Haemanthus Andromeda.** (*Gard.* 1912, 437, 438, f.) Amaryllidaceae. G. Garden hybrid between *H. Katherinae* and *H. magnificus*. (C. G. van Tubergen, Jun., Zwanenburg, Haarlem.)

Haemanthus multiflorus var. **filiflorus.** (*B. T. O.* 1912, 275, t. 10.) G. Differs from the type in having narrower perianth-segments. Tropical Africa. (R. Scuola di Pomologia, Florence.) [= *H. filiflorus*, Hiern.]

Haplopappus scaposus. (*G. C.* 1912, lii. 478.) Compositae. H. An evergreen undershrub. Leaves obovate-oblong, long-attenuated at the base, acute, serrate. Flower-heads solitary, pedunculate. See *Gay, Fl. Chil.* iv. 50. Chili. (Edinburgh B. G.)

Helenium autumnale rubrum. (*G. C.* 1912, lii. 217; *G. M.* 1912, 722.) Compositae. H. Flower-heads deep red. (A. Perry.)

Helichrysum Selago. (*G. C.* 1912, lii. 478.) Compositae. H. H. A small much-branched shrub. Leaves closely appressed and imbricate or sometimes spreading, ovate-triangular, up to ⅛ in. long. Flower-heads solitary, terminal, sessile, ¼ in. across. See *Cheeseman, Man. N. Zeal. Fl.* 343. New Zealand. (Edinburgh B. G.)

***Heliconia insignis.** (*G. M.* 1912, 637.) Scitamineae. S. "With dark bronzy-green leaves." (F. Sander & Sons.)

Heuchera tiarelloides. (*R. H.* 1912, 528.) Saxifragaceae. H. Obtained by crossing the best forms of hybrid *Heucheras* with *Tiarella cordifolia*. (V. Lemoine & Son, Nancy.)

Hippeastrum Forgetii. (*J. R. H. S.* xxxviii. 73.) Amaryllidaceae. G. A new species allied to *H. pardinum*. Bulb rather small, with a neck 3 in. long. Leaves 6, appearing with the inflorescence, finally 2 ft. long and 1½ in. broad. Scape about 2 ft. high, 2-flowered. Pedicels 3 in. long. Flowers stellate, dull crimson or intensely dark red, green at the base, about 6 in. across; outer segments slightly incurved at the tips, 4 in. long, 1 in. broad; inner segments slightly shorter and narrower. Peru. (F. Sander & Sons; A. Worsley.)

***Hydrangea aspera.** (*Veitch, N. H. P.* 1912, 9.) Saxifragaceae. H. A deciduous shrub, 2–3 ft. high. Leaves ovate, finely serrate, 6 in. long, rough. Corymbs roundish. Flowers pale mauve, the outer row only sterile. China. (J. Veitch & Sons.)

Hydrangea Bretschneideri sutchuenensis. (*G. C.* 1912, li. suppl. xix.) H. Leaves ovate-lanceolate, finely serrate, hairy on both sides. Fertile flowers cream white, surrounded by pure white sterile ones, in corymbs. Western China. (Miss Willmott.) [= *H. xanthoneura* var. *setschuenensis*, Rehd.]

***Hydrangea Sargentiana.** (*B. M.* t. 8447; *G. C.* 1912, li. suppl. xvi.) H. H. Shrub, 6–7 ft. high. Stems clothed with stiff erect scaly pale yellowish-green hairs. Leaves dark velvety green above, paler beneath, hairy on both sides; blade ovate, 6–12 in. long, 3–7 in. broad; petiole 3 in. long. Inflorescence up to nearly 1 ft. across, mostly of fertile flowers, with 8–10 pure white sterile ones about 1½ in. across. Stamens bluish. Central China. (Hon. Vicary Gibbs; Kew.)

Hydrangea xanthoneura. (*M. D. G.* 1912, 185; *Veitch, N. H. P.* 1912, 10.) H. A very variable species closely allied to *H. Bretschneideri* from which it differs in the bark of the shoots of the previous year. This does not peel off and is often yellowish-grey or grey-brown. Three varieties are distinguished:—*lancifolia* (= *H. Bretschneideri* var. *lancifolia*), *setschuenensis* (= *H. Bretschneideri* var. *setschuenensis*) and *Wilsonii*. Central and Western China. (Arnold Arboretum; J. Veitch & Sons.)

Hydrocotyle hirsuta. (*G. C.* 1912, lii. 478.) Umbelliferae. H. H. A hairy little plant with rather long creeping stems, small suborbicular shortly stalked leaves, and axillary spikes of whorled sessile flowers. San Domingo. (Edinburgh B. G.)

***Hypericum fragile.** (*Bees, Cat.* no. 36, 1912, 48.) Hypericaceae. H. Stems creeping, wiry, bearing very small leaves and very numerous rich golden flowers. Greece. (Bees, Ltd.)

Ilex corallina. (*R. H.* 1912, 512.) Aquifoliaceae. H. Branches long and slender. Leaves ovate - lanceolate, 4–5 in. long, 1¼–1¾ in. broad, finely denticulate, shining dark green above, paler beneath. Fruits numerous, small, coral-red. Central and Western China. (L. Chenault, Orleans.)

***Ilex Veitchii.** (*G. C.* 1912, lii. 289; *Veitch, N. H. P.* 1912, 4.) H. Very similar to *I. Pernyi*, but it is stronger in growth and its leaves are larger. Western China. (J. Veitch & Sons.)

Incarvillea brevipes. (*G. C.* 1912, li. suppl. xv.) Bignoniaceae. H. Included in list of 1909 under the name of *I. grandiflora* var. *brevipes*.

Indigofera reticulata. (*M. G. Z.* 1912, 271, f.) Leguminosae. H. Similar to *I. Kirilowi*, but it is dwarfer. Leaves a beautiful dark shining green. Flowers snow-white. China and Corea. (Darmstadt B. G.)

Ipomoea stans. (*M. G. Z.* 1912, 157, f.) Convolvulaceae. H. H. A non-climbing herbaceous species with a turnip-shaped white rootstock. It forms a dense broad bush up to about 1⅜ ft. high. Leaves almost sessile, lanceolate or oblong, undulate-dentate, ¾–1¼ in. long, hirsute. Flowers axillary, long-stalked, funnelshaped - campanulate, about 3 in. across, azure-blue, with a purple sheen. Mexico. (Darmstadt B. G.)

Iris Clarkei x Douglasiana. (*G. C.* 1912, li. 274.) Iridaceae. H. Garden hybrid. (W. R. Dykes.)

***Iris Sintenisii.** (*G. C.* 1912, lii. 85.) H. Appears to be intermediate being *I. graminea* and *I. spuria*. Leaves in somewhat close tufts, almost linear, as long as the stem, glaucous green. Stem about 1 ft. long, with a single terminal head of 2 flowers. Falls with a small almost round blade separated by a narrow constriction from a long oval haft, closely veined with dark blue-purple on a white ground. Standards dark blue-purple. Black Sea Region and South-eastern Italy. (W. R. Dykes.)

***Ixora lutea.** (*B. M.* t. 8439.) Rubiaceae. S. This has been in cultivation for at least 20 years under the name of *I. coccinea* var. *lutea*. It differs from *I. coccinea* by the laxer inflorescence and the pale yellow flowers with ovate-rhomboid corolla-lobes. Garden origin. (Kew.)

***Jasminum Beesianum.** (*N. B. G. Edinb.* v. 253; *Bees, Cat.* no. 36, 1912, 98.) Oleaceae. H. Shrub 1–3 ft. high. Leaves simple, small, shortly petioled, ovate or lanceolate, ½–1 in. long, 2½–4 lin. broad. Flowers very fragrant. Calyx-lobes linear, 1¼–2½ lin. long. Corolla pink or deep rose; tube about 5 lin. long; lobes erect or spreading, broadly elliptic or suborbicular, 2–2½ lin. long. Western China. (Bees, Ltd.)

***Kerstingiella geocarpa.** (*K. B.* 1912, 209, t.) Leguminosae. S. Cultivated in Togoland and other parts of Tropical Africa on account of its edible beans, which are ripened in the ground like those of *Arachis hypogaea* and *Voandzeia subterranea* to the latter of which the new genus is very closely allied. Leaves trifoliolate. Flowers small, in pairs or solitary, greenish-white. Mature pod up to about ¾ in. long, indehiscent, simple or consisting of 2 or 3 joints. Seeds oblong, about ¼ in. long. (Dahlem B. G.; Jena B. G.)

Laelia anceps Holmesii. (*O. R.* 1912, 91.) Orchidaceae. S. "A very fine variety of the *Chamberlainiana* type." (J. McCartney.)

***Laelia Gortonii.** (*O. R.* 1912, 142.) S. The name given to a plant of doubtful origin and of which the flowers are unknown. It is supposed to be Brazilian and to belong to the *L. crispilabia* group. The round pseudobulbs are about 1 in. long, and become furrowed after the first season, 1- or sometimes 2-leaved. Leaves lanceolate, 4–7 ins. long.

Laelia Johniana. (*Orchis*, 1912, 6, t. 1, ff. 22-30.) G. Pseudobulbs club-shaped, 3–4 in. long, 1-leaved. Leaves oblong-ligulate, about 5 in. long and 1¼ in. broad. Raceme few-flowered. Flowers greenish-white, small for the genus. Sepals ligulate, about 1 in. long. Petals oblong-elliptic, broader than the sepals. Lip 3-lobed. Probably Colombia. (R. W. John, Andernach-on-Rhine.)

Laelia purpurata Schroederae. (*O. R.* 1912, 193.) S. Sepals and petals nearly white. Lip with some violet veins. (Baron B. Schröder.)

Laelio-cattleya amabilis. (*G. C.* 1912, li. 62; *G. M.* 1912, 87.) Orchidaceae. G. Garden hybrid between *L.-c. Fascinator* and *C. Luddemanniana Stanleyi.* (Charlesworth & Co.)

Laelio-cattleya Ethelae. (*O. R.* 1912, 31.) G. Garden hybrid between *L.c. corbeillensis* and *Cattleya bicolor.* (E. F. Clark.)

Laelio-cattleya Godmanii. (*G. C.* 1912, lii. 141; *G. M.* 1912, 650.) G. Garden hybrid between *Cattleya Iris* and *L.-c. callistoglossa.* (F. D. Godman.)

Laelio-cattleya Hastediana. (*G. C.* 1912, lii. 254; *G. M.* 1912, 753.) G. Garden hybrid between *Cattleya Dowiana aurea* and *L.-c. Greenwoodii.* (C. J. Phillips.)

Laelio-cattleya Hemptinnei. (*G. M.* 1912, 838.) G. Garden hybrid between *Cattleya Dowiana aurea* and *L.-c. rouselensis.* (Comte J. de Hemptienne, St. Denis, Ghent.)

Laelio-cattleya Henriettae. (*O. W.* ii. 218.) G. Garden hybrid between *L.-c. Greenwoodii* and *Cattleya Lueddemanniana.* (C. Maron, Brunoy, France.)

Laelio-cattleya lilacina. (*O. W.* iii. 30.) G. Garden hybrid between *Laelia Latona* and *Cattleya Pittiae.* (H. T. Pitt.)

Laelio-cattleya McBeaniana. (*G. C.* 1912, li. 229, 237, f. 107; *O. R.* 1912, 154.) G. Garden hybrid between *Laelia anceps Schroederiana* and *Cattleya Schroederae.* (J. & A. A. McBean.)

Laelio-cattleya Mossemiliana. (*G. C.* 1912, li. 18.) G. Garden hybrid between *Cattleya labiata* and *L.-c. bletchleyensis.* (C. F. Karthaus, Potsdam, Berlin.)

Laelio-cattleya rigida. (*O.W.* ii. 177.) G. Garden hybrid between *Cattleya Lawrenceana* and *Laelia superbiens.* (F. Sander & Sons.)

Laelio-cattleya rubiginosa. (*O. W.* iii. 5.) G. Garden hybrid between *Cattleya Schilleriana* and *Laelia Boothiana.* (H. T. Pitt.)

Laelio-cattleya Schwarziana. (*J. H. F.* 1912, 90.) G. Garden hybrid between *L.-c. bletchleyensis* and *Cattleya aurea.* (C. Schwarz, Ferrières-en-Brie, Seine-et-Marne, France.)

Laelio-cattleya Thurgoodiana. (*O. W.* ii. 85.) G. Garden hybrid between *L.-c. Martinettii* and *Cattleya Hardyana.* (H. T. Pitt.)

Laelio-cattleya venusta. (*O. W.* iii. 5.) G. Garden hybrid between *L.-c. Aphrodite* and *L.-c. Schilleriana* (F. Sander & Sons.)

Lastrea patens var. **Mayi.** (*G. C.* 1912, li. 386, f. 184; suppl. xvi.; *G. M.* 1912, June 1, suppl. 5.) Filices. G. Garden hybrid between *L. patens* and *L. lepida.* (H. B. May & Sons.) [*Nephrodium.*]

***Leea macropus.** (*G. M.* 1912, 637.) Ampelidaceae. S. "With broad leaflets." (F. Sander & Sons.)

Leptospermum scoparium var. **Boscawenii.** (*G. C.* 1912, li. suppl. xvi.; *R. H.* 1912, 520, col. t. f. B.) Myrtaceae. *G.* Flowers cherry-red in bud, rosy-white when expanded, 1 in. across. New Zealand. (Rev. A. T. Boscawen.)

***Leptospermum scoparium** var. **Nichollii.** (*G. C.* 1912, li. suppl. xv.; *B. M.* t. 8419; *R. H.* 1912, 520, col. t. f. A.) Included in the list of 1908 as *L. Nichollii.* The varietal name should be *Nichollsii.* See *G. C.* 1913, liii. 255.

***Lewisia Howellii.** (*G. C.* 1912, li. 349, f. 172; *G. M.* 1912, 376.) Portulaceae. H.H. or H. Leaves in a rosette, spathulate, crisped or undulate on the margins, 3–4 in. long, about ½ broad in the broadest part, thick and fleshy. Flowers in pedunculate subcorymbose cymes, 1 in. across, buff-yellow, streaked with crimson or pink. Western North America. (M. Prichard; Kew.)

Lilium davuricum var. **luteum.** (*G. C.* 1912, li. suppl. xvi., f. 13; *G. M.* 1912, June 1, suppl. 1.) Liliaceae. H. Flowers rich bright yellow, thickly spotted with reddish-brown inside. (A. Perry.)

Lilium Sargentiae. (*G. C.* 1912, li. 385.) H. A new species allied to *L. sul-*

plurerum, but differing from this and others of the same group by the larger globose or ovoid acute purple bulb, densely leafy stem, oblong-lanceolate or ovate-lanceolate distinctly 3–7-nerved leaves bearing bulbils in their axils, waxy-white perianth red-purple outside, and pilose filaments. *L. Brownii* var. *leucanthum* in *Gard.* lxix. 234, with plate; *L. leucanthum*, Hort. Veitch. and *L. leucanthemum*, Hort. Farquhar. are recorded as being synonymous. See *G. C.* 1912, li. 404. Western China. (Farquhar & Co.)

***Lilium warleyense.** (*G. C.* 1912, lii. 15; *G. M.* 1912, 513 [f.], 534, 612.) H. A handsome species with a general resemblance to a fine form of *L. sutchuenense*. Stem about 4 ft. high, without bulbils. Leaves numerous, spirally arranged, linear, 3–5 in. long, about ⅛ in. broad. Flowers 20 or more, in an open cluster, pendulous on slender pedicels, about 3 in. across, orange-red, with prominent chocolate spots; segments recurved. China. (Miss Willmott.)

Lissochilus Grantii. (*O. R.* 1912, 322.) Orchidaceae. S. Allied to *L. Krebsii*, but the inflorescence is rather more compact and the flowers are smaller. Scape about 3 ft. high. Raceme 6 in. long, about 14-flowered. Flowers 1¼ in. across. Sepals brownish-green. Petals nearly orbicular, bright yellow behind, cream-yellow in front. Lip 3-lobed, light yellow; side lobes triangular-oblong, cream-coloured, with slate-coloured stripes below, tinged with brown above. British East Africa. (J. Bush.)

***Lithospermum Froebellii.** (*G. C.* 1912, li. 418; *G. M.* 1912, 487.) Boraginaceae. H. "A dwarf compact plant with Rosemary-like leaves and deep blue flowers on erect stems about 9 in. high." (R. Prichard.)

Lobelia taliensis. (*G. C.* 1912, lii. 416; *N. B. G. Edinb.* v. 170.) Campanulaceae. H. An erect plant 1–4 ft. high. Leaves narrowly obovate or obovate-oblong, 1½–3 in. long, glabrous. Peduncle very short. Flowers blue, 1–1½ in. long. Western China. (Edinburgh B. G.)

Lonicera Koehneana. (*Sargent, T. & S.* i. 41, t. 21; *Späth, Cat.* 1912–13, n. 154, 101.) Caprifoliaceae. H. Closely related to *L. chrysantha*, differing in the large connate bractlets, pubescent globose and larger ovaries, and the densely adpressed-pubescent corolla with a wide and strongly gibbous tube. Corolla 2-lipped, yellow, about 7 lin. long. China. (L. Späth, Berlin.)

***Lonicera prostrata.** (*Veitch, N. H. P.* 1912, 10.) H. A deciduous quick-growing scandent species. Leaves ovate, bright green on the young growths. Flowers small, pale cream. China. (J. Veitch & Sons.)

Lonicera Ruprechtiana var. **calvescens.** (*M. D. G.* 1912, 194.) H. Differs from the type in the leaves, which are almost glabrous except the hairy nerves on the under side. Amur Region. (Arnold Arboretum.)

***Lonicera Standishii lancifolia.** (*G. C.* 1912, li. 142.) H. Appears to be partly evergreen, and the leaves are narrower and more pointed than in the type. China. (Kew.)

Lonicera tatarica var. **pallens.** (*M. D. G.* 1912, 194.) H. Differs from other forms in the relatively small and narrow bluish leaves and in the small at first pale rose finally almost white flowers. Turkestan. (Arnold Arboretum.)

Lonicera Vilmorinii. (*M. D. G.* 1912, 194.) H. Garden hybrid between *L. deflexicalyx* and *L. quinquelocularis*. (M. L. de Vilmorin, Les Barres, France; Arnold Arboretum.)

Lotus mascaënsis. (*M. G. Z.* 1912, 253, f.) Leguminosae. G. Similar to *L. peliorhynchus* in vegetative characters, but it has a more compact bushy habit owing to the branches being much shorter. Flowers a pure shining canary-yellow, very freely produced. Western Tenerife. (O. Burchard, Puerto de Orotava, Tenerife.)

Lotus peliorhynchus atrococcineus. (*M. G. Z.* 1912, 3, f.) G. A form with dark red flowers. (Haage & Schmidt, Erfurt.)

Lowiara insignis. (*O. R.* 1912. 360.) Orchidaceae. G. Garden hybrid between *Sophronitis grandiflora* and *Brassolaelia Helen*. (Stuart Low & Co.)

Lueddemannia Vyvereana. (*Orchis*, 1912, 113, t. 25, ff. 17–23.) Orchidaceae. S. Nearly allied to *L. Pescatorei*, but it has a differently-shaped lip with a longer claw, a smaller basal callus, and a less prominent thickening in the middle of the blade. Peru. (F. Sander & Sons.)

*Lupinus argenteus. (*G. C.* 1912, li. suppl. xv.) Leguminosae. H. Leaves small, silvery. Racemes erect. Flowers rose-purple, with white on the standard. Western North America. (Bees, Ltd.)

Mammillaria collina. (*M. K.* 1912, 162.) Cactaceae. G. Stem simple, globose, up to about 5 in. across; apex somewhat depressed and clothed with white wool; tubercles cylindric, about 5 lin. long; axils woolly; radial spines 16–18, up to 2 lin. long, white; central 1 or 2, longer. Flowers rose-coloured, 7½–10 lin. long. Mexico. (Darmstadt B. G.; R. Graessner, Perleberg, Germany.)

Mammillaria dumetorum. (*M. K.* 1912, 149.) G. Tufted, proliferous from the base. Stems depressed-globose, finally cylindric-globose; tubercles conical, up to about 5 lin. long; radial spines numerous, bristle-like or awl-shaped, up to 3 lin. long or more, white, yellow at the base; central none. Flowers white with greenish-brown stripes, about ¾ in. long. Mexico. (Darmstadt B. G.)

*Mammillaria Kunzeana. (*M. K.* 1912, 177, f.) G. Tufted. Stems at first globose, later subcylindric, 3 in. high, bright green; tubercles cylindric, about 7 lin. long; radial spines about 25, bristle-like, white, up to about ½ in. long; central 3 or 4, yellow or dark brown, larger than the radial. Flowers whitish or whitish-yellow, rose outside, ¾ in. long, 7 lin. across. Mexico. (L. Quehl, Halle-on-Saale, Germany.)

Mammillaria Mainiae. (*M. K.* 1912, 19. 144, f.) G. Stem simple or sparingly branched, semiglobose or ovoid, up to 4 in. high; tubercles cylindric, then conical, glaucous, yellow, 5–7 lin. long; radial spines 10–15, slender, yellowish, up to 5 lin. long; central 1 or 2, hooked, almost twice as long as the radial. Flowers numerous, funnel-shaped, ¾ in. long, up to 1 in. across; outer perianth-segments oblong, greenish-white; inner lanceolate, white with a rose-red median stripe. Mexico. (L. Quehl, Halle-on-Saale, Germany.)

Mammillaria napina. (*M. K.* 1912, 161.) G. Characterised by having a turnip-shaped root. Stem simple? semiglobose; tubercles conical; axils subwoolly or often naked; spines all radial, 12, white, yellow at the base, about 4 lin. long. Flowers pale crimson or rose-red. Mexico. (Darmstadt B. G.)

Mammillaria pilispina. (*M. K.* 1912, 150.) G. A tufted proliferous plant. Stems semiglobose, about 1½ in. thick; tubercles cylindric, up to 5 lin. long; spines clothed with fine short hairs; radial partly very slender, curled, white, partly (4 or 5) thicker, subulate, spreading, about ¼ in. long, yellow at the base, white in the middle and brown at the apex; central 1, about ¼ in. long. Flowers and fruit unknown. Mexico. (Darmstadt B. G.)

Mammillaria radicantissima. (*M. K.* 1912, 164, f.) G. Remarkable for its yellowish carrot-shaped roots. Stem simple, subglobose; tubercles at first conical, then subrhomboid, very oblique, 5 lin. long; radial spines about 10, needle-like, white, up to 5 lin. long; central 1, longer and stouter. Flowers about ¾ lin. long; perianth-segments lanceolate, the outer yellowish, with darker median stripe, fringed, the inner pale-coloured, not fringed. Country not known. (F. de Laet, Contich, Belgium.)

Mammillaria Verhaertiana. (*M. K.* 1912, 152, f.) G. Stem simple, shortly cylindric, 3¾ in. high, 1¾ in. across; tubercles subconical, 3½ lin. long; areolae round-oval, very small; spines all horizontal, the radial 20 or more, up to 4 lin. long, the central 4 or 6, larger. Flowers whitish, funnel-shaped, about ¾ in. long and the same across. Probably Mexico. (F. de Laet, Contich, Belgium.)

Mammillaria viperina. (*M. K.* 1912, 148.) G. A tufted plant with cylindric decumbent stems 7–10 lin. thick; tubercles cylindric or globose, about 2½ lin. long; spines numerous, slender, rigid, up to about 2½ lin. long, variously coloured. Flowers and fruits unknown. Mexico. (Darmstadt B. G.)

Maxillaria Fürstenbergiana. (*Orchis.* 1912, 116, t. 25, ff. 1–9.) Orchidaceae. S. Habit similar to that of *M. ochroleuca*, but more robust. Flowers rather large, very freely produced, snow-white, with the anterior half of the sepals orange-yellow and the middle lobe of the lip red-bordered. Peru? (Baron von Fürstenberg, Schloss Hugenpoet, Mintard, Germany.)

Maxillaria Hennisiana. (*Orchis*, 1912. 117, t. 26, ff. 10–17.) S. Similar to *M. ochroleuca* but distinguishable by its broader distinctly stalked leaves, narrower sepals and petals, and by its lip. Its flowers are slightly smaller, yellowish-white, and fragrant. Pro-

bably Colombia. (Baron von Fürstenberg, Schloss Hugenpoet, Mintard, Germany.)

***Mertensia primuloides** var. **chitralensis.** (*Bees, Cat.* no. 36, 1912, 60.) Boraginaceae. H. Flowers larger and more deeply coloured than in the type. Chitral State, N. W. India. (Bees, Ltd.)

***Mesembryanthemum decorum.** (*G. C.* 1912, li. 403.) Ficoideae. G. A new species originally introduced about 40 years ago and figured in *B. M.* t. 6057 as *M. introrsum* (an error for *M. intonsum*). It was subsequently lost to cultivation and has now been re-introduced. The hairs on the tips of the leaves are white, and the petals rosy mauve, not as described in *B. M.* Cape Colony. (Kew.)

Mesembryanthemum Pearsoni. (*K. B.* 1912, 277; *B. M.* t. 8463.) G. A new species allied to *M. testiculare* from which it differs in having leaves nearly twice as large, the calyx exserted to about the level of the leaf-tips, and differently coloured flowers of which 2 or 3 of the inner series of petals are dull yellow, more or less streaked with purple, while the outermost series are entirely mauve-purple. Cape Colony. (Kew.)

***Micromeles Folgneri.** (*M. G. Z.* 1912, 136, f.) Rosaceae. H. A small tree resembling *M. alnifolia*, but it is laxer in habit, with somewhat pendulous branches, and the leaves, which are covered on the under side with a silvery white indumentum, are smaller. Flowers white, in corymbose heads. Fruits yellow-red. Central China. (J. Veitch & Sons.)

Miltonia Phalaenopsis alba. (*O. W.* ii. 242, f.) Orchidaceae. S. Flowers pure white except for a bright yellow blotch and lineal markings on the lip. (Lager & Hurrell, New Jersey, U.S.A.)

Miltonia radiola. (*G. C.* 1912, li. 421.) S. "Flowers large, white, shaded purple, and heavily blotched with purple and yellow." (J. & A. A. McBean.)

Narcissus calathinus × minimus. (*G. C.* 1912, li. 175.) Amaryllidaceae. H. Garden hybrid. (Chapman.)

Nepenthes longicaudata. (*R. H.* 1912, 439.) Nepenthaceae. S. Garden hybrid between *N. Curtisii superba* and *N. Northiana pulchra*. (R. Jarry-Desloges, Remilly, Ardennes, France.)

Nephrolepis exaltata muscosa. (*G. C.* 1912, lii. 55; *G. M.* 1912, 571, 629, f.) Filices. S. A compact vigorous-growing variety with pale green fronds, which are not so finely divided as in others of the newer forms. (H. B. May & Sons.)

Nephrolepis exaltata Rochfordii. (*G. C.* 1912, lii. 15; *G. M.* 1912, 515 (f.), 535.) S. Similar to the variety *Marshallii compacta*, but the fronds are more finely divided and have a moss-like appearance. (T. Rochford & Sons.)

Nephrolepis exaltata Rooseveltii. (*G. C.* 1912, li. 91.) S. A striking form with undulate dark green pinnae. (H. B. May & Sons.) [Syn. *N. Rooseveltii*; G. C. 1912, li. 416.]

Nephrolepis exaltata Willmottae. (*G. C.* 1912, lii. 355.) S. A dwarf form closely resembling the variety *Marshallii*, but the fronds are more moss-like. (H. B. May & Sons.)

Nephrolepis Giatresii. (*G. C.* 1912, lii. 321; *M. G. Z.* 1912, 44, as *N. Giatrasi.*) S. A sport from *N. exaltata* var. *Scottii*, peculiarly compact in habit, with gracefully arching fronds scarcely more than 1 ft. long. (W. A. Manda, South Orange, New York.)

Nephrolepis Millsii. (*G. C.* 1912, lii. 321; *G. M.* 1912, 838.) S. Apparently a form of *N. exaltata* characterised by an open habit of growth (not dense and crested), with small finely crenate divisions of the fronds. (W. A. Manda, South Orange, New York.)

Nephrolepis Rooseveltii. See **N. exaltata Rooseveltii.**

Nephrolepis viridissima. (*G. C.* 1912, li. suppl. xv.) S. Fronds dark green, undulate. (W. A. Manda, South Orange, New York.)

Nephrolepis Wredei. (*M. G. Z.* 1912, 482, f. 1.) S. Derived from *N. exaltata Whitmanii*. It has broad pendulous deeply cut fronds. (E. Neubert, Wandsbek, Germany.)

Nymphaea formosa. (*G. C.* 1912, lii. 55.) Nymphaeaceae. H. Apparently of garden origin. Flowers 8 in. across, soft pink, becoming deeper at the base of the petals, pure yellow in the centre; inner petals pure yellow. (L. de Rothschild.)

Nymphaea gigantea var. **Hudsoniana.** (*G. C.* 1912, lii. 182.) S. Flowers large, round, blue, with broad petals and golden filaments. (L. de Rothschild.)

Odontioda chessingtonensis. (*O. R.* 1912, 136.) Orchidaceae. G. Garden hybrid between *Cochlioda Noetzliana* and *Odontoglossum Rolfeae.* (R. G. Thwaites.)

Odontioda Rolfei. (*O. R.* 1912, 199; *O. W.* ii. 219.) G. Garden hybrid between *Cochlioda vulcanica* and *Odontoglossum Hunnewellianum.* (R. G. Thwaites.)

Odontioda Sanderae. (*O. R.* 1912, 136.) G. Garden hybrid between *Cochlioda Noetzliana* and *Odontoglossum percultum.* (R. G. Thwaites.)

Odontioda Schroederi. (*G. C.* 1912, li. 30; *O. R.* 1912, 57.) G. Garden hybrid between *O. Bradshawiae* and *Odontoglossum crispum.* (Charlesworth & Co.)

Odontoglossum Brayanum. (*G. C.* 1912, li. 161; *O. R.* 1912, 133.) Orchidaceae. G. Garden hybrid between *O. Groganiae* and *O. Harryanum.* (W. B. Hartland & Sons.)

Odontoglossum Collieri. (*G. C.* 1912, li. 92.) G. Garden hybrid between *O. Phoebe* and *O. ardentissimum.* (Sir J. Colman.)

Odontoglossum crispum Anami. (*O. R.* 1912, 90.) G. "A fine variety, with heavily blotched segments." (W. R. Lee.)

Odontoglossum Kilburneanum. (*O. W.* ii. 222.) G. Garden hybrid between *O. illustre* and *O. gandavense.* (C. J. Phillips.)

Odontoglossum Lambardeanum. (*O. W.* ii. 220, f.) G. Garden hybrid between *O. Vuylstekeae* and *O. coeruleum.* (C. J. Phillips.)

Odontoglossum nigrescens. (*G. C.* 1912, lii. 142; *O. R.* 1912, 279.) G. Garden hybrid between *O. Edwardii* and *O. cirrhosum.* (J. and A. A. McBean.)

Odontoglossum Palmeri. (*O. W.* ii. 159.) G. Garden hybrid between *O. crispo-Harryanum* and *O. Lambeauianum.* (T. W. Palmer.)

Odontoglossum Pescatorei Floryi. (*G. C.* 1912, li. 126.) G. Flowers "of good shape and with reddish spots on the inner parts of the segments." (S. Flory.)

Odontoglossum scintillans. (*O. R.* 1912, 349; *O. W.* iii. 55.) G. Garden hybrid between *O. Rossii rubescens* and *O. Wilckeanum princeps.* (W. Thompson.)

Odontoglossum Woodroffeae. (*G. C.* 1912, lii. 254; *G. M.* 1912, 752.) G. Garden hybrid between *O. Rossii rubescens* and *O. Queen Alexandra.* (E. H. Davidson.)

***Odontonia decora.** (*O. R.* 1912, 196.) Orchidaceae. G. Garden hybrid between *Miltonia Warscewiczii* and *Odontoglossum Adrianae.* (F. Sander & Sons.)

***Odontonia Firminii.** (*G. C.* 1912, li. 45; *T. H.* 1912, 53; *O. R.* 1912, 287.) G. Garden hybrid supposed to be between *Odontoglossum crispum* and *Miltonia vexillaria* or *M. Phalaenopsis.* (F. Lambeau, Brussels.)

Odontonia ornata. (*O. R.* 1912, 196.) G. Garden hybrid between *Miltonia Warscewiczii* and *Odontoglossum Wilckeanum.* (F. Sander & Sons.)

Olearia Colensoi. (*G. C.* 1912, li. suppl. xviii.) Compositae. H. H. Leaves oblong-lanceolate, obtuse, 6 in. long, 3 in. broad, thick, coriaceous, at first densely white-tomentose on both sides, the older shining above. New Zealand; Stewart Island. (Capt. A. A. Dorrien Smith.)

Olearia Cunninghamii. (*G. C.* 1912, li. suppl. xix.) H. H. Leaves obovate, slightly toothed, whitish beneath. New Zealand. (Capt. A. A. Dorrien Smith.)

***Olearia ferruginea.** (*G. C.* 1912, li. suppl. xix.) G. or H. H. Leaves ovate, 3½ in. long, 2 in. broad, covered on the under side, as well as the young wood, with a rust-coloured tomentum Australia. (Capt. A. A. Dorrien Smith.)

***Olearia semidentata.** (*G. C.* 1912, li. suppl. xviii.) H. H. A compact densely leafy bush. Leaves lanceolate, 2½–3 in. long, ½–¾ in. broad, serrate or serrulate near the tips, white-tomentose beneath. Flower-heads with purple ray- and violet disc-florets, or sometimes white. Chatham Islands. (Capt. A. A. Dorrien Smith.)

Olearia virgata lineata. (*G. C.* 1912, li. suppl. xviii.) H. H. Leaves very narrowly linear, 1–1½ in. long. New Zealand. (Capt. A. A. Dorrien Smith.)

Oncidioda cinnabarina. (*G. C.* 1912, lii. 476; *G. M.* 1912, 994.) Orchidaceae. G. Garden hybrid between *Cochlioda Noetzliana* and *Oncidium monachicum*. (Charlesworth & Co.)

Oncidioda Cooksoniae. (*O. R.* 1912, 272.) G. Garden hybrid between *Cochlioda Noetzliana* and *Oncidium macranthum*. (Mrs. Cookson.)

Onosma stellulatum var. **compactum.** (*M. G. Z.* 1912, 325, f.) Boraginaceae. H. Differs chiefly from the type in its more compact habit. (Bremen B. G.)

Ophrys etrusca and **O. Grampinii.** (*J. H. F.* 1912, 186.) Orchidaceae. G. Hybrids between *O. aranifera* and *O. tenthredinifera*, found in a wild state in Italy, and afterwards obtained by crossing the same species under cultivation. (L. F. Denis, Balaruc-les-Bains, France.)

Opuntia tomentilla. (*M. K.* 1912, 147.) Cactaceae. G. A remarkably free-flowering species, with obovate or obovate-oblong joints 8–12 in. long, 3¾–6 in. broad, bright green. Areolae about 1¼ in. apart, clothed with short blackish wool. Spines 1 or 2, slender, whitish, 3½–5 lin. long. Flowers 2–2½ in. long, bright red-yellow. See *M. K.* 1910, 81. Guatemala. (Lady Hanbury, La Mortola, Italy.)

***Oxalis enneaphylla** var. **rosea.** (*G. C.* 1912, li. suppl. xvi., f. 18; *G. M.* 1912, 424 & June 1, suppl. 6.) Geraniaceae. H. Flowers a soft rose-colour. (C. Elliott.)

***Oxytropis yunnanensis.** (*G. C.* 1912, li. 400.) Leguminosae. H. Stems many, woody. Leaves pilose, long-petiolate; leaflets in 8–11 pairs, lanceolate, 2½–3½ lin. long. Peduncles 3–5 in. long. Flowers 7–12 together in a rather dense head, deep blue, about 8 lin. long. See *Franchet, Pl. Delav.* 163. Yunnan, China. (Edinburgh B. G.)

Phalangium Bichei. (*M. G. Z.* 1912, 434, f.) Liliaceae. G. Appears to be the plant included in the list of 1902 as *Anthericum Bicheti*. (Haage & Schmidt, Erfurt.)

Phellodendron amurense × japonicum. (*M. D. G.* 1912, 361.) Rutaceae. H. Garden hybrid. (Lund B. G.)

Philadelphus sericanthus Rehderianus. (*M. D. G.* 1912, 196.) Saxifragaceae. H. Differs from the type in its larger leaves. Western China. (H. A. Hesse, Weener, Hanover.)

Philadelphus splendens. (*M. D. G.* 1912, 185.) H. Hybrid between *P. Gordonianus* and *P. grandiflorus*. (Arnold Arboretum.)

Phlox Arendsii. (*G. C.* 1912, lii. 15; *G. M.* 1912, 534.) Polemoniaceae. H. The name given to a strain said to have originated as hybrids from *P. canadensis* and *P. decussata*. (G. Arends, Ronsdorf, Germany.)

Phyllocactus Coopermannii. (*G. C.* 1912, li. 339; *G. M.* 1912, 425.) Cactaceae. G. Garden hybrid between *P. Cooperi* and *P. Ackermannii*. (A. Worsley.)

Physurus validus. (*K. B.* 1912, 134.) Orchidaceae. S. Allied to *P. rosea* and *P. bifalcis*. It has elliptic-lanceolate leaves about 5 in. long, a stout scape bearing an elongated dense spike about 6 in. long, and small whitish flowers. Peru. (Edinburgh B. G.)

Picea excelsa albo-spica. (*R. H.* 1912, 269.) Coniferae. H. Leaves on the young shoots yellowish-white. (P. V. Didier, Malzéville, Nancy.)

Picea excelsa falcata. (*M. D. G.* 1912, 363, f.) H. Peculiar in habit, the branches being sickle-shaped and curved upwards. (Lippe Palace-Garden, Detmold, Germany.)

***Pinguicula gypsicola.** (*M. G. Z.* 1912, 1, ff.; *G. C.* 1912, li. 58.) Lentibulariaceae. G. Leaves in a dense rosette, at first short and spathulate, afterwards long and lanceolate, becoming yellow-green with red tips, covered with white bristle-like hairs, glandular-hairy above. Flowers dark to light red-violet, with darker stripes and a white blotch on the lower lip, about 1½ in. across. Spur 1¼ in. long. Mexico. (Darmstadt B. G.)

Pleurothallis repens. (*K. B.* 1912, 131.) Orchidaceae. S. Rhizome creeping, slender. Secondary stems slender, 1–1¼ in. long. Leaves elliptic-oblong, 3-toothed at the apex, 1½–2 in

long. Peduncles 1-flowered. Flowers 6–7 lin. long, reddish-brown, with pallid sepals and petals striped with purple-red. South Brazil. (Sir F. Wigan.)

*Polygonum campanulatum. (*G. C.* 1912, lii. 489, f. 212.) Polygonaceae. H. A bushy plant, 2–3 ft. high, with creeping rhizomes. Stems much branched. Leaves petiolate, elliptic, acuminate, green above, covered beneath with a fibrous brown tomentum. Flowers pink and white, in terminal cymes. The species belongs to the same section as *P. polystachyum* and *P. molle*. Himalaya of Eastern Nepal & Sikkim. (Miss Shaen.)

Polypodium irioides Bartelsi. (*G. M.* 1912, 637.) Filices. G. A form with much divided fronds. (F. Sander & Sons.)

*Polypodium Vidgenii. (*G. C.* 1912, li. 387, f. 185; suppl. xvi.; *G. M.* 1912, June 1, suppl. 5.) G. Sterile fronds numerous, cinnamon-red, about a quarter as long as the fertile fronds, which are 2–3 ft. long, gracefully arched, bright pale green, with finely divided pinnae. Queensland. (H. B. May & Sons.)

Polystachya repens. (*K. B.* 1912, 132.) Orchidaceae. S. A very distinct species, extremely small, and remarkable for its creeping habit. Flowers only about ¼ in. long, with buff-yellow sepals and petals striped with brown, and deep red-brown lip. Uganda. (Sir Trevor Lawrence.)

Primula Beesiana × Bulleyana. (*G. C.* 1912, li. 368.) H. Garden hybrid. (Edinburgh B. G.)

Primula Fauriae. (*G. C.* 1912, li. 368, as *P. Faurei*.) H.? Leaves with golden farina below. Flowers rose-coloured, freely produced. Japan. (Edinburgh B. G.)

Primula Gillii. See P. Wattii.

*Primula Juliae. (*G. C.* 1912, li. 228, 293, f. 142; *B. M.* t. 8468.) H. Tufted like the common primrose, producing from the main axis, after flowering, short runner-like shoots which root at the nodes. Leaves reniform-orbicular, cordate at the base, 1½–2 in. long and broad; petiole slightly winged, about 3 in. long. Peduncles about 3 in. long. Flowers solitary, rosy purple, about the same size as those of the common primrose. Transcaucasia. (Kew; Oxford B. G.)

*Primula Knuthiana. (*G. C.* 1912, li. 175, 190, 366, suppl. iii.; *G. M.* 1912, 212B, 253, 254, f.) H. A small-growing pretty species resembling in habit *P. farinosa frondosa*. Leaves slightly mealy. Flowers mauve or rosy lilac, in a somewhat crowded umbel. North China. (J. Veitch & Sons.)

*Primula malacoides alba. (*G. C.* 1912, li. suppl. xv.) G. A white-flowered form. (Bees, Ltd.)

Primula malvacea. (*G. C.* 1912, li. 368.) H.? Allied to *P. cortusoides*. Flowers mauve, in 2 or 3 superposed umbels. Yunnan, China. (Edinburgh B. G.)

Primula membranifolia. (*G. C.* 1912, li. 368.) H.? Flowers violet. Yunnan, China. (Edinburgh B. G.)

*Primula patens. (*R. H.* 1912, 489, f. 173.) H. Allied to *P. cortusoides*, differing chiefly in being larger in all its parts. Leaves elliptic, rounded at the apex, cordate at the base, 3½–5 in. long, coarsely bidentate, hairy; petiole 5–6 in. long. Scape up to 1 ft. long bearing a 12–20-flowered umbel. Pedicels 1½ in. long. Calyx campanulate, 5-lobed almost to the middle; lobes lanceolate. Corolla lilac-rose except the slightly differently coloured eye; limb about 1 in. across; lobes deeply emarginate. Mandshuria. (P. L. de Vilmorin, Verrières-le-Buisson, France.)

Primula pseudocapitata. (*G. C.* 1912, lii. 416.) H.? Flowers in rotate capitula resembling *P. capitata*, but much smaller. Yunnan, China. (Edinburgh B. G.)

*Primula pulchelloides. (*G. C.* 1912, li. 368.) H.? Nearly allied to *P. nivalis*. Flowers rather large, violet. China. (Edinburgh B. G.)

*Primula pycnoloba. (*G. C.* 1912, lii. 160; *G. M.* 1912, 657.) H. Leaves resembling those of a *Megasea*. Flowers small, dark purple, with a large calyx. Western China. (J. Veitch & Sons.)

*Primula tibetica. (*G. C.* 1912, li. 368.) H.? Allied to *P. involucrata*. It is a dwarf plant with rose flowers. Tibet. (Edinburgh B. G.)

*Primula uniflora. (*G. C.* 1912, li. 407, f. 194.) H. A small plant. Leaves petiolate, small, ovate-lanceolate, deeply toothed. Peduncles 2–3 in. high, 1- or rarely 2-flowered. Corolla pale lilac or mauve; limb

nearly flat, about ¾ in. across. Probably no other *Primula* has flowers so large in comparison with the foliage. Sikkim Himalaya. (Kew.)

***Primula warleyensis.** (*G. C.* 1912, li. 228; *G. M.* 1912, 305.) H.? A provisional name for a small-growing species with green slightly serrate leaves about 1 in. long, and rather large mauve flowers in umbels about 2 in. high. China. (Miss Willmott.)

***Primula Wattii.** (*G. C.* 1912, li. 286, f. 138; *B. M.* t. 8456.) H.? A small plant with translucent green leaves covered with soft glandular hairs. Scape bronze-tinted, bearing an umbel of bell-shaped pendulous flowers, which are deep indigo in bud and later almost a royal purple shade outside and violet-blue and white within, with a broad white mealy eye. Eastern Sikkim. (Edinburgh B. G.; R. Gill & Son.) [Syn. *P. Gillii*; G. C. 1912, li. 227; Gard. 1912, 190, 202, f.]

Prunus gymnodonta. (*Pl. Wils.* i. 279.) Rosaceae. H. Cultivated as *P. triflora* from which it differs in the conduplicate leaves, which are partly or only slightly involute on the margin, glandless teeth of the leaves, very short pedicels, and in the smaller flowers. Mandshuria. (L. Späth, Berlin.)

Prunus lobulata. (*Pl. Wils.* i. 220; *M. D. G.* 1912, 196.) H. Tree, up to about 35 ft. high. Leaves rhombic or oblong-ovate, about 3½ in. long and 1¾ in. broad; petiole 3½–7 lin. long. Flowers white. Fruits globose or globose-ovoid, about ½ in. long, red. Western China. (Arnold Arboretum; H. G. Hesse, Weener, Hanover.)

Prunus serrula var. **tibetica.** (*Pl. Wils.* i. 213; *M. D. G.* 1912, 196.) H. Tree, up to about 35 ft. high, with a dense head. Leaves lanceolate, long-acuminate, 1½–3½ in. long, ¼–1 in. broad. Umbels usually 3-flowered. Flowers white. Fruits ovoid or rounded-ovoid, about ½ in. long, red. Western China. (Arnold Arboretum; H. A. Hesse, Weener, Hanover.)

Prunus tomentosa var. **endotricha.** (*Pl. Wils.* i. 225; *M. D. G.* 1912, 196.) H. Shrub or small tree. Leaves elliptic or oblong, 1–2 in. long, ½–1 in. broad; petiole 1–2 lin. long. Flowers white. Fruits 5–7 lin. long, 4½–6 lin. broad, dark red, sparingly pilose. Central China. (Arnold Arboretum; H. A. Hesse, Weener, Hanover.)

Prunus triflora var. **pubipes.** (*Pl. Wils.* i. 280.) H. Pedicels usually densely pubescent. Calyx-tube pubescent for a third or half of its length. Stamens 19–22 of which the larger are up to 1¾ lin. long. (Dahlem B. G.; L. Späth, Berlin.)

***Pseuderanthemum lilacinum.** (*B. M.* t. 8446.) Acanthaceae. S. Shrub, about 3 ft. high. Leaves lanceolate, long-acuminate, 4½–10 in. long, 1½–2¼ in. broad; petiole up to 1¾ in. long. Inflorescence paniculate. Corolla-tube narrow, straight, about 1½ in. long, almost white; limb 2-lipped, lilac-blue, with a white or yellowish blotch and numerous minute red specks on the mid-lobe of the lower lip, 1½ in. across; upper lip 2 lobed; lower lip 3-lobed; lobes oblong. Malay Peninsula. (Kew.)

Pseudotsuga Douglasii Fletcheriana. (*G. C.* 1912, li. 190.) Coniferae. H. A very dwarf much-branched form. (Fletcher Bros.) [Syn. *Abies Douglasii Fletcheriana*; G. M. 1912, 253.]

Psilostrophe tagetina. (*G. C.* 1912, lii. 416, as *P. Tagetinae*.) Compositae. H. A low-growing woolly herb, with narrow often deeply toothed leaves, and numerous small yellow flower-heads arranged in corymbose clusters. Southern United States. (Edinburgh, B. G.) [Syn. *Riddellia tagetina*, Nutt. See *Gray, Syn. Fl.* ed. 2, i. pt. 2, 317.]

Pteris Gauthieri. (*Gfl.* 1912, 312, f. 34.) Filices. G. A form of *P. cretica* having the segments of the fronds more or less deeply lobed. (O. Bernstiel, Bornstedt, Potsdam, Berlin.)

Pteris Parkeri. (*G. C.* 1912, li. 160; *G. M.* 1912, 213.) S. A sporeling with an exact habit of growth, deep green fronds, and broad pinnae of stout texture. (J. J. Parker.)

***Pyrus Veitchiana.** (*G. C.* 1912, lii. 288; *G. M.* 1912, 796.) Rosaceae. H. A handsome tree with spreading branches. Leaves simple, broadly ovate, with finely toothed lobes. Berries dull crimson, about ½ in. across, freely produced in heavy clusters. China. (J. Veitch & Sons.)

***Rehmannia kewensis.** (*G. C.* 1912, li. 218, f. 97; *Gard.* 1912, 296, f.) Scrophulariaceae. G. Garden hybrid between *R. Henryi* and *R. glutinosa*. (Kew.)

Rhipsalis angustissima. (*B.M.H.N.* 1911, 470.) Cactaceae. S. Very much branched, pendulous. Articulations of the stem heteromorphous, the primary ones terete, elongated, the secondary ones short, narrow, leaflike, stalked, serrate, spirally arranged. Flowers lateral, whitish-rose, small. Berries scaly, white. Costa Rica. (R. Roland-Gosselin.)

***Rhododendron Delavayi album.** (*G. C.* 1912, li. 252.) Ericaceae. H.H. or H. Flowers pure white with small purple spots on the upper segments and a blotch of purple at the base of the corolla. Yunnan, China. (Kew.)

Rhododendron Fargesii. (*G. C.* 1912, li. 252.) H.? A bush ¼–20 ft. high, resembling *R. campylocarpum* in foliage and in the shape of its flowers. Leaves ovate, cordate at the base, rounded at the apex, thin, glabrous and dull green above, glaucous beneath. Flowers in a fairly close head. Calyx almost obsolete. Corolla broadly campanulate, lavender-pink, with numerous small dull red spots on the upper part; lobes 6 or 7, not reflexed. Mountains of Szechuen, China. (P. D. Williams.)

***Rhododendron siderophyllum.** (*G. M.* 1912, 426.) H. Habit loose. Leaves narrow, 1–2 in. long, up to ¾ in. broad. Flowers similar in shape and size to those of *R. yunnanense*, but flesh-coloured, spotted with yellowish-brown. South-Western China. (J. Veitch & Sons.)

Ribes Berlandieri. (*Späth, Cat.* 1912–13, no. 154, 120.) Saxifragaceae. H. Hybrid between *R. cereum* and *R. inebrians*. (L. Späth, Berlin.)

Ribes glaciale. (*Bees, Cat.* no. 36, 1912, 100.) H. Flowers greenish-white with purple centre, produced in trusses all along the branches. Fruits bright scarlet and finally jet black. Yunnan, China. (Bees, Ltd.)

***Ribes laurifolium.** (*G. C.* 1912, li. 126; *G. M.* 1912, 171; *Gard.* 1912, 143, f.) H. Leaves rather broad, dark green. Racemes axillary, pendulous, small. Flowers greenish-yellow, each subtended by a strap-shaped yellowish-green bract. China. (Hon. Vicary Gibbs.)

Rodgersia pinnata superba. (*R. H.* 1912, 344; *J. H. F.* 1912, 320.) Saxifragaceae. H. Much finer than the type with the inflorescences more than 1½ ft. long, raised well above the foliage. Flowers delicate rose. Fruits dark red. China. (M. L. de Vilmorin, Les Barres, Loiret, France.)

Rosa Giraldii. (*M. D. G.* 1912, 366.) Rosaceae. H. A vigorous-growing species, the young shoots reddish and densely covered with prickles, the old wood almost destitute of them. Flowers ¾–1¼ in. across, a beautiful rose-red, with white centre, in large loose inflorescences. Fruits oblong, scarlet, hanging a long time. Northern China. (H. A. Hesse, Weener, Hanover.)

Rosa omeiensis. (*B. M.* t. 8471.) H. A new species closely allied to *R. sericea*, differing in having more numerous and narrower leaflets, usually much smaller flowers, and thickened yellow fruiting pedicels. Leaflets 9–13, ½–¾ in. long, ⅛–¼ in. broad. Flowers solitary, white, over 1 in. across. Central China. (J. Veitch & Sons.)

***Roscoea cautleoides.** (*G. C.* 1912, li. suppl. xv. as *R. cautlioides*.) Scitamineae. H. Scapes about 9 in. high, each with a group of flowers at the apex. Flowers pale primrose-yellow, borne singly in the axils of sheathing bracts. Yunnan, China. (Bees, Ltd.)

***Rubus biflorus** var. **quinqueflorus.** (*G. C.* 1912, li. 148, f. 63.) Rosaceae. H. Very vigorous, sometimes 12 ft. high. Stems covered with a white waxy bloom; spines stiff, ½ in. long. Leaves pinnate, usually with 5 leaflets, green above, white beneath. Panicles terminal and axillary, usually 5-flowered. Flowers white, ¾ in. across. Fruits rich golden-yellow, of good flavour. Western China. (J. Veitch & Sons.)

***Rubus flosculosus.** (*G. C.* 1912, li. 166; *Späth, Cat.* 1912–13, n. 154, 123). H. An erect bush about 7 feet high. Stems dark brown, armed with stiff prickles ¼ in. long. Leaves pinnate, silvery-white beneath; leaflets 5, the terminal largest. Panicles about 12-flowered. Flowers small, pale purple. Fruits small, dark red. Central and Western China. (L. Späth, Berlin.)

***Rubus Giraldianus.** (*G. C.* 1912, lii. 448.) H. An elegant bush, 8–9 ft. high; stems white, branching in the upper half, terminating in graceful arched growths. Leaves pinnate North and Central China. (Kew.)

Rubus illecebrosus. (*Späth, Cat.* 1912–13, n. 154, 123.) H. A dwarf undershrub with pretty foliage. Flowers white, 1¾ in. across. Fruits attractive, scarlet. Japan? (L. Späth, Berlin.)

***Rubus niveus.** (*G. C.* 1912, li. 166.) H. Stems up to 12 ft. high, 3 in. in circumference at the base, thickly clothed with small spines and stiff brown hairs. Leaves pinnate; leaflets 3, large. Panicles terminal and axillary, up to 30-flowered. Flowers small, white. Fruits dull black, medium-sized. Central and Western China. (J. Veitch & Sons.)

***Rubus Swinhoii.** (*G. C.* 1912, li. 167, f. 69; *Veitch, N. H. P.* 1912, 10.) H Stems slender, up to 8 ft. high, dark green with a reddish tinge on the exposed side, armed with rather few short spines. Leaves simple, ovate, usually about 3 in. long and 1½ in. broad, serrate, dark green above, paler beneath. Panicles terminal, 5–7-flowered. Fruit black, rather bitter. China and Formosa. (J. Veitch & Sons.)

***Rubus tricolor.** (*G. C.* 1912, li. 167.) H. An earlier name for the species included in the list of 1910 as *R. polytrichus*.

***Rubus Wilsonii.** (*K. B.* 1912, 36.) H. Stems very prickly. Leaves pinnate, up to 6 in. long; leaflets 3 or 5, coarsely doubly serrate, glabrous above, sparingly prickly beneath; lateral unequally ovate; terminal broadly ovate or suborbicular, sometimes slightly 3-lobed. Flowers in short axillary and terminal fascicles. Petals purple, ⅛ in. long, erose on the margin. Central China. (J. Veitch & Sons.)

***Rupicola sprengelioides.** (*B. M.* t. 8438.) Epacridaceae. G. Shrub, 2½ ft. high, with twiggy branches. Leaves linear-lanceolate, ⅜–1 in. long, 1–1½ lin. broad, rigid. Flowers solitary, axillary, forming a raceme-like leafy inflorescence with a barren apex. Corolla subrotate, almost ½ in. across, milky white; segments ovate, 3 lin. long. Anthers orange-yellow. The genus is closely allied to *Epacris*. New South Wales. (Kew.)

Saccolabium fragans. (*O. R.* 1912, 229.) Orchidaceae. S. This was in cultivation in 1882 and is included in the list 1876–96, but appears to have been lost. It has now been re-introduced. Burma. (F. Peeters, Brussels.)

Saccolabium Fürstenbergianum. (*Orchis*, 1912, 68, t. 13, ff. 19–26.) S. Very closely allied to *S. trichromum*, but it has broader leaves, a branched inflorescence, and somewhat smaller flowers, which are rose-red with a paler spur and a white column. Siam. (Baron von Fürstenberg, Schloss Hugenpoet, Mintard, Germany.)

Saccolabium Regnieri. (*R. H.* 1912, 526.) S. A small plant with orange-coloured flowers in short racemes. Country not stated. (A. Régnier, Fontenay-sous-Bois, Seine, France.)

***Salix magnifica.** (*G. C.* 1912, li. suppl. xix.) Salicaceae. H. Remarkable for its very large obovate leaves. In young plants they are much smaller (about 6 in. long), with red midrib and petiole. China. (Hon. Vicary Gibbs.)

Salvia controversa. (*G. C.* 1912, lii. 478.) Labiatae. H. Leaves pinnatisect, bullate. Flowers small, blue. Mediterranean Region. (Edinburgh B. G.)

***Salvia flava** (*N. B. G. Edinb.* v. 235; *Bees, Cat.* no. 36, 1912, 78.) H. Plant 9–18 in. high. Basal leaves long-petioled, hastate-triangular or hastate-ovate, crenate or crenate-serrate, 1¾–6½ in. long, 1–3¼ in. broad, more or less pilose on both sides. Racemes of 4–8 subremote whorls. Whorls usually 4-flowered. Calyx pilose, 5–6 lin. long. Corolla canary yellow, with purple markings, about 2½ in. long; upper lip sparingly woolly. Western China. (Bees, Ltd.)

Salvia oaxacana. (*M. G. Z.* 1912, 565. f.) H. H. A shrubby densely leafy species, reaching a height of about 4 ft., with an erect bushy habit. Leaves shortly stalked, somewhat lanceolate, up to ⅔ in. long, leathery, rugose, finely crenate, densely white-tomentose beneath. Flowers in a lax raceme, cardinal-red, nearly 1¾ in. long. Mexico. (Darmstadt B. G.)

Salvia superba. (*G. C.* 1912, lii. 15.) H. Garden hybrid between *S. turkestanica* and *S. Sclarea*. (B. Ladhams.)

***Salvia uliginosa.** (*R. H.* 1912, 468, f. 163.) H. H. A strongly aromatic herb,

with an abundance of rhizomes. Stems strong, often more than 5 ft. high, finely hirsute. Leaves lanceolate, acute, 3½–5 in. long, ¾–1 in. broad, serrate, glabrous, dark green above, whitish beneath; petiole 1½–1¾ in. long. Spikes terminal, interrupted, many-flowered, long-pedunculate, up to 1 ft. long. Calyx small, hirsute. Corolla about ¾ in. long; upper lip reduced; lower lip large, clear blue, with some white in the centre. Allied to *S. azurea*. Brazil and Urnguay. (L. Chenault, Orleans.)

Sansevieria Craigii. (*G. C.* 1912, li. suppl. xv.) Liliaceae. S. Leaves variegated. (W. A. Manda, South Orange, New York.)

***Saxifraga Aizoon Rex.** (*Gard.* 1912, 179.) Saxifragaceae. H. A handsome form with pure white flowers borne on carmine-red stems. (R. Farrer.)

***Saxifraga bathoniensis.** (*Gard.* 1912, 243.) H. A variety of *S. decipiens* with large scarlet-crimson flowers.

***Saxifraga Brunoniana** var. **majuscula.** (*N. B. G. Edinb.* v. 146.) H. Larger than the type. Stems 3–6½ in. long, 3–9-flowered. Basal leaves up to ¾ in. long, 1½–2½ lin. broad. Branches of the inflorescence 1¾–4 in. long. Yunnan, China. (Edinburgh B. G.) [Syn. *S. majuscula*; G. C. 1912, li. 400.]

***Saxifraga Burseriana elegans.** (*Gard.* 1912, 193, f.) H. Distinct in having bright rose-coloured buds and pale lilac flowers. (Kew.)

***Saxifraga cochlearis × lantoscana.** (*G. C.* 1912, li. 367, f. 178.) H. Garden hybrid. (Kew.)

Saxifraga diversifolia f. foliata. (*G. C.* 1912, li. 400; *N. B. G. Edinb.* v. 138.) H. Stems with 1 leaf or more, 3–20 flowered. Leaves cordate-ovate or cordate, glabrous or very shortly and densely glandular-pilose on the margin. Flowers golden-yellow. Sepals with the nerves mostly parallel. Yunnan, China. (Edinburgh B. G.)

***Saxifraga kewensis.** (*G. C.* 1912, li. 247, f. 112.) H. Garden hybrid between *S. Burseriana* var. *macrantha* and *S. Frederici-Augusti*. (Kew.)

Saxifraga majuscula. See **S. Brunoniana** var. **majuscula.**

Saxifraga turfosa. (*G. C.* 1912, lii. 416.) H. A yellow-flowered species allied to *S. diversifolia* and *S. parnassifolia*, but distinguished by its long stolons. Yunnan, China. (Edinburgh B. G.)

***Schomburgkia Lueddemani.** (*B. M.* t. 8427.) Orchidaceae. S. Pseudobulbs erect, fusiformly clavate, 6–10 in. long, often 2-leaved at the tip. Leaves arcuate, 8–14 in. long, 1¾–2 in. broad. Scapes erect, 1½–2 ft. long, many-flowered. Flowers of medium size, brown, with purple lip and column, yellow crest and anther. A reappearance; it was in cultivation in 1862. Venezuela. (Kew.)

Scolopendrium vulgare plumosum. (*R. H.* 1912, 414.) Filices. H. Believed to be a hybrid between the varieties *diversifrons* and *laceratum*. (H. Stansfield.)

Scrophularia aquatica var. **variegata.** (*J. H. F.* 1912, 493, 808.) Scrophulariaceae. H. Leaves with a broad white marginal band. (Vilmorin-Andrieux & Co.)

Sedum Adolphi. (*N. B.* v. 277.) Crassulaceae. G. Perennial. Flowering-stems, erect, robust, branched, glabrous. Leaves alternate, sessile, obovate-lanceolate or broadly obovate, ¾–1¼ in. long, 6–7 lin. broad, entire. Inflorescence corymb-like, rather dense, 1¼ in. long, 1¾ in. broad. Corolla glabrous, about ¼ in. long, divided nearly to the base into 5 ovate lanceolate segments aristate at the apex. Stamens 10. Mexico. (Dahlem B. G.)

***Sedum primuloides.** (*Bees, Cat.* no. 36, 1912, 287.) H. Rhizome thick, branched. Branches short, crowded. Leaves in terminal rosettes, rather long-petioled, broadly spathulate, 5–10 lin. long, including the petiole, 2½–3½ lin. broad in the middle. Peduncles short, 1-flowered. Petals white, broadly ovate, about ⅛ in. long. See *Journal de Botanique*, 1896, 84. Yunnan, China. (Bees, Ltd.)

***Sedum Woodwardii.** (*K. B.* 1912, 390.) H. Resembles *S. Aizoon*, but it has obliquely obovate obtusely toothed leaves and larger looser cymes. Flowers about ⅛ in. across, yellow. Country not definitely known, possibly China. (R. Woodward.)

Selenocypripedium Malhouitri. (*J. H. F.* 1912, 706.) Orchidaceae. S. Supposed to be a garden hybrid between *Cypripedium Harrisianum* and *Selenipedium Schlimii*. (E. Boullet, Corbie, Somme, France.)

***Sinomenium diversifolium.** (*G. C.* 1912, lii. 402, f. 178.) Menispermaceae. H. The name now adopted for the plant included in the list of 1910 as *Cocculus heterophyllus*. It is also in cultivation under the name of *Cocculus variiformis*.

Socratea Forgetiana. (*G. M.* 1912, 637, f.) Palmae. S. A distinct new species. Leaves rich green, at first entire and broadly rounded, later pinnate, with the terminal leaflet much larger than the others. Peru. (F. Sander & Sons.) (Syn. *Ceratolobus Forgetiana*; G. C. 1912, li. suppl. xv. f. 8.)

Sophro-cattleya westfieldensis. (*G. C.* 1912, lii. 476; *G. M.* 1912, 993.) Orchidaceae. G. Garden hybrid between *Cattleya labiata* and *S.-c. eximia*. (F. Wellesley.)

Spiraea japonica ovalifolia. (*M. D. G.* 1912, 196.) Rosaceae. H. Leaves ovate, dark green. Flowers white, in large corymbose inflorescences. Western China. (Arnold Arboretum; H. A. Hesse, Weener, Hanover.)

***Stanhopea peruviana.** (*B. M.* t. 8417.) Orchidaceae. S. A new species allied to *S. Wardii*, but its flowers are smaller with narrower petals, and the hypochile is much shortened and is not distinctly angled at the base. Leaves unusually broad and firm. Peru. (F. Sander & Sons; Kew.)

Stelis dolichopus. (*Orchis*, 1912, 63, t. 12, ff. 1–8.) Orchidaceae. S. Stems nearly 6 in. long, 1-leaved. Leaves rather thick, oblong-ligulate, up to nearly 4 in. long. Raceme only 1½–1¾ in. long. Flowers pale yellow, 1¼ lin. across. Probably Colombia. (Dahlem B. G.)

Stelis Hennisiana. (*Orchis*, 1912, 64, t. 12, ff. 9–16.) S. Stems slender, up to 2½ in. long, 1-leaved. Leaves lanceolate-ligulate, about 3 in. long; petiole 1¼ in. long. Racemes slender, 1-sided, many-flowered, usually slightly longer than the leaves. Flowers dark purple-red, about 3½ lin. across. Colombia. (W. Hennis, Hildesheim, Germany.)

Stylidium articulatum. (*G. C.* 1912, lii. 416.) Stylidiaceae. G. Glabrous, except the glandular-pubescent inflorescence. Leaves in a rosette, oblong-spathulate, 2–4 in. long. Scape 6–18 in. high. Raceme or panicle dense, 2–4 in. long. Corolla rather large for the genus. See *Benth. Fl. Austral.* iv. 19. Western Australia. (Edinburgh B. G.)

***Styrax Wilsonii.** (*Pl. Wils.* i. 293; *B. M.* t. 8444.) Styraceae. H. ? A new species differing from *S. japonica* by having all its parts about half the size and its leaves irregularly dentate. It produces flowers in a very young state—when only about 17 months old. Western China. (Arnold Arboretum; Kew.)

***Syringa Julianae.** (*K. B.* 1912, 37; *B. M.* t. 8423.) Oleaceae. H. Nearly allied to *S. pubescens*, but easily distinguished from it by its villous leaves, branchlets and inflorescence; the leaves of the flowering branches are smaller and more shortly stalked, and the flowers are smaller. Corolla-tube deep purplish-lilac outside; lobes nearly white inside. Western China. (J. Veitch & Sons.)

Syringa Meyeri. (*Pl. Wils.* i. 301.) H. Very closely allied to *S. pubescens*. It differs in the longer corolla-tube (about 8 lin. long), the minutely but distinctly puberulous branches, and in the different venation of the leaves. Northern China. (U.S. Dep. Agric.; Arnold Arboretum.)

Syringa reflexa. (*Pl. Wils.* i. 297; *M. D. G.* 1912, 196.) H. Remarkable for its long pendulous inflorescences. Leaves oblong-elliptic, about 4 in. long and 2 in. broad. Corolla violet; tube about ½ in. long; lobes scarcely spreading. Central China. (Arnold Arboretum; H. A. Hesse, Weener, Hanover.)

***Testudinaria paniculata.** (*K. B.* 1912, 195.) Dioscoreaceae. G. Cultivated for many years as *T. sylvatica*, but it is distinguished from this species by its curiously flattened, not dome-shaped, woody rhizome, the coriaceous subevergreen 10–13-nerved leaves, and the larger short-tubed rotate flowers, which are arranged in large axillary panicles. South Africa. (Kew.)

Thecostele Zollingeri. (*G. C.* 1912, lii. 42.) Orchidaceae. S. Resembles in growth and inflorescence a *Gongora* or an *Acriopsis*. Scape pendulous, about 9 in. long. Flowers numerous, pretty, over ½ in. across. Sepals and narrowly linear petals

white, spotted with crimson. Lip yellowish, bilobed, glandular, with a pink pubescent front. Lower Burma and Malay Archipelago. (Hon. N. C. Rothschild.)

Tilia Spaethii. (*Späth Cat.* 1912–13, n. 154, 134.) Tiliaceae. H. Garden hybrid between *T. americana* and *T. cordata*. (L. Späth, Berlin.)

***Trevesia Sanderi.** (*G. C.* 1912, li. suppl. xv.; *G. M.* 1912, 637; *Jard.* 1912, 260, f. 133.) Araliaceae. S. An *Aralia*-like plant, with handsome deeply cut leaves borne on long cylindrical petioles; leaf-blade nearly circular in outline, 2 ft. across, with 5 deeply and curiously incised lobes. Annam. (F. Sander & Sons.)

Tritoma Besteri. (*R. H.* 1912, 390; *J. H. F.* 1912, 448.) Liliaceae. H.? Scapes strong, attaining a height of 2¾ ft. Spikes rather short, ovoid. Flowers about 2 in. long, orange-red when young, afterwards canary-yellow with the tips of the lobes almost white. Stamens black, slightly exserted. The species resembles *Kniphofia Macowani* in habit and size. Country not stated. (Vilmorin-Andrieux & Co., Paris.) [*Kniphofia.*]

Tritoma hybrida mirabilis. (*M. G. Z.* 1912, 566, f.) H.? A race of garden hybrids with variously coloured flowers ranging from pale citron-yellow to orange-scarlet, remarkable in flowering within a year of the seedling stage. (Haage & Schmidt, Erfurt.) [*Kniphofia.*]

Ulmus campestris haarlemensis. (*M. D. G.* 1912, 366.) Urticaceae. H. A form of rather slow growth, with a dense broad pyramidal head. Leaves shining dark green, persisting 2 or 3 weeks longer than in the typical form. (L. Springer, Haarlem.)

Vanda coerulea albens. (*O. W.* iii. 49.) Orchidaceae. S. Sepals and petals pure white, with a very slight tinge of reddish-purple at their tips. Lip coloured as in the typical form. (A. Gann.)

Vanda coerulea albidula. (*O. R.* 1912, 31.) S. Flowers white with some blue veining on the lip. (O. O. Wrigley.)

Vanda coerula blenheimensis. (*G. C.* 1912, lii. 218.) S. Flowers closely veined with pure blue on a white ground. (Duke of Marlborough.)

***Verbesina Purpusi.** (*M. G. Z.* 1912, 435, f.) Compositae. H.? A dwarf plant. Leaves in a rosette, elliptic, 4–5 in. long, crenate, rugose, with a broad pale midrib. Scapes 8–12 in. long, each bearing a solitary flower-head 1¾–2 in. across. Ray-florets deep golden. The flower-heads resemble those of *Arnica montana*. Mexico. (Darmstadt B. G.)

***Veronica cinerea.** (*G. C.* 1912, lii. 227.) Scrophulariaceae. H. A low-growing plant producing a mat of grey leaves. Flowers violet-blue or probably sometimes white, in small spikes. Asia Minor. (S. Arnott.)

Veronica coriacea. (*Bees, Cat.* no. 36, 1912, 94.) H. Leaves leathery, persistent, dark green. Flowers fringed, "lavender-red," in slender spikes. Western China. (Bees, Ltd.)

***Veronica pirolaeformis.** (*G. C.* 1912, li. suppl. xv. as *V. pyrolaeformis.*) H. A little plant with ovate-spathulate sessile leaves and erect spikes of bluish-white flowers. China. (Bees, Ltd.)

***Veronica surculosa.** (*Bees, Cat.* no. 36, 1912, 94, as *V. merculosa.*) H. "A quick-growing hardy alpine with attractive downy foliage and heads of white flowers, set off with a prominent red ring in the centre." Cilicia, Asia Minor. (Bees, Ltd.)

Viburnum alnifolium praecox. (*M. D. G.* 1912, 371, f.) Caprifoliaceae. H. The flowers of this appear 4 weeks earlier than those of the typical form. (H. A. Hesse, Weener, Hanover.)

***Viburnum ichangense.** (*Pl. Wils.* i. 115; *M. D. G.* 1912, 196.) H. Shrub with erect slender branches. Leaves thin, oval to oval-lanceolate, up to 2½ in. long and 1¼ in. broad, yellowish-grey and slightly pubescent above, more pubescent beneath. Flowers yellowish-white, in inflorescences ¾–1¾ in. across. Central China. (Arnold Arboretum; H. A. Hesse, Weener, Hanover.)

***Viburnum lobophyllum.** (*Pl. Wils.* i. 114; *M. D. G.* 1912, 201.) H. Erect. Leaves oval, up to 4 in. long and 3⅓ in. broad. Flowers small, yellowish-white, in inflorescences 2–4 in. across. Fruits roundish, shining red. Central China. (Arnold Arboretum; H. A. Hesse, Weener, Hanover.)

***Viburnum ovatifolium.** (*Pl. Wils.* i. 113; *M. D. G.* 1912, 201, as *ovalifolium*.) H. A vigorous-growing shrub. Leaves elongate-ovate, up to 5 in. long and 2 in. broad. Flowers whitish. Fruits shining red, ovoid. Central China. (Arnold Arboretum; H. A. Hesse, Weener, Hanover.)

Vuylstekeara Hyeana. (*O. R.* 1912, 171.) Orchidaceae. G. Garden hybrid between *Odontonia Lairesseae* and *Cochlioda Noetzliana*. (J. Hye de Crom, Ghent.)

Vuylstekeara insignis. (*O. R.* 1911, 60; 1912, 171; *R. H.* 1911, 146.) G. Garden hybrid between *Miltonia vexillaria* and *Cochlioda Noetzliana* (not *Odontioda Vuylstekeae*). (Ch. Vuylsteke, Ghent.) [= *Miltonioda Harwoodii*.]

***Wahlenbergia gentianoides.** (*G. C.* 1912, li. 380; *G. M.* 1912, 445.) Campanulaceae. H. A pretty herbaceous perennial with relatively large blue pendulous flowers on slender erect stems 9–12 in. high. (J. J. Piper & Co.) [= *W. vincaeflora*, Decne.]

Weigela styriaca. See **Diervilla hybrida styriaca.**

***Xanthosoma cordifolium.** (*K. B.* 1912, 345.) Araceae. S. Allied to *X. sagittaefolium* from which it differs in having very obtusely rounded-cordate leaves and a spadix bearing club-shaped neutral organs. British Guiana. (Kew.)

Xylobium bractescens. (*O. R.* 1912, 359.) Orchidaceae. G. One of the largest species of the genus. Scape 2½ ft. high, with a raceme of about 18 flowers. Bracts narrow, 1½–2 in. long. Sepals and petals rather more than 1 in. long, greenish-yellow. Lip obscurely 3-lobed, with 7–9 strongly undulate fleshy reddish-brown keels. A re-introduction; it was in cultivation in 1842. Peru. (F. Sander & Sons. [Syn. *Maxillaria bractescens*, Lindl.]

Xylosma racemosum var. **pubescens.** (*Pl. Wils.* i. 283; *M. D. G.* 1912, 201.) Bixaceae. H. Evergreen tree, up to 65 ft. high, with long spiny branches. Leaves ovate, serrate, reddish when young, yellowish-grey when old. Fruits black. The variety differs from the type in having the youngest branchlets pubescent. Central and Western China. (Arnold Arboretum; H. A. Hesse, Weener, Hanover.)

Zygopetalum Armstrongiae. (*G. C.* 1912, li. suppl. xxi; *O. R.* 1912, 195.) Orchidaceae. G. Garden hybrid between *Z. Mackaii* and *Z. rostratum*. (Armstrong & Brown.)

Zygopetalum Brewii. (*G. C.* 1912, lii. 56; *J. of H.* 1912, lxv. 279, f.) G. Garden hybrid between *Z. Perrenoudii* and *Z. rostratum*. (Charlesworth & Co.)

Zygopetalum Mackaii Charlesworthii. (*G. C.* 1912, li. 83, f. 37; *O. R.* 1912, 72.) G. Sepals and petals pale emerald green, destitute of the purple-brown marking of the type. Lip pure white. (Charlesworth & Co.)

Zygopetalum maxillare Sanderianum. (*G. C.* 1912, lii. 254; *G. M.* 1912, 753.) G. Flowers large. Sepals and petals pale green, barred with light purple. Lip broad, white, with a thick ribbed violet crest. Probably a fine form of *Z. Sanderianum*. (Sir Trevor Lawrence.)

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